# MODIFICATION HISTORY

MODEL NAME : KLV-46/52X300A, 46/52W380A

SERVICE MANUAL

PARTS No. : 9-834-177-02

* Blue characters are linking.

| Ver. | DATA | CONTENTS |
|---|---|---|
| 1.0 | 2007.09 | Issued |
| 1.1 | 2008.06 | Addition of KLV-46W380A/52W380A Models.<br>(P. 2 to P. 3, P. 6, P. 1-13, P. 1-19, P. 4-1, P. 5-15, P. 5-22, P. 5-31) |
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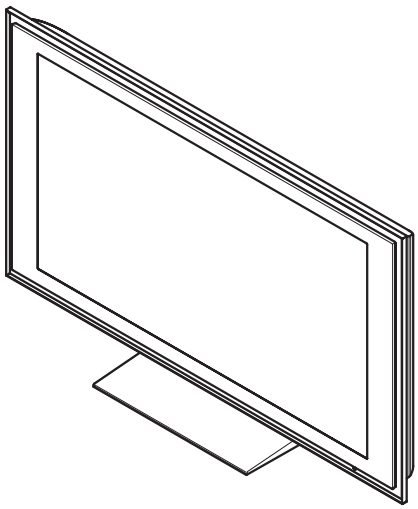
Self Diagnosis Supported model

# KLV-46X300A/52X300A/46W380A/52W380A

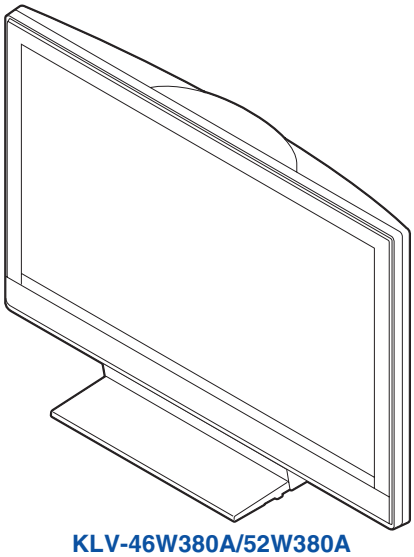
## SERVICE MANUAL

*China Model*

RM-SA013



KLV-46X300A/52X300A



KLV-46W380A/52W380A

## FIX2 CHASSIS

LCD Colour TV

SONY

# SPECIFICATIONS

| Model name | | KLV-46X300A | KLV-52X300A | KLV-46W380A | KLV-52W380A |
|---|---|---|---|---|---|
| **System** | | | | | |
| Panel System | | LCD (Liquid Crystal Display) Panel | | | |
| TV System | | D/K, B/G, I, M | | | |
| Colour System | | PAL, SECAM, NTSC 3.58, NTSC 4.43 (only Video In) | | | |
| Channel Coverage | | D/K: VHF: C1 to C12, R1 to R12/ UHF: C13 to C57, R21 to R60/ CATV: S01 to S03, S1 to S41, Z1 to Z39<br>B/G: VHF: E2 to E12/ UHF: E21 to E69/ CATV: S01 to S03, S1 to S41<br>I: UHF: B21 to B69/ CATV: S01 to S03, S1 to S41<br>M: VHF: A2 to A13/ UHF: A14 to A79/ CATV: A-8 to A-2, A to W+4, W+6 to W+84 | | | |
| Sound Output | | 9 W + 9 W (THD; Total Harmonic Distortion: 7%) | | | |
| **Input/Output jacks** | | | | | |
| Antenna | | 75 ohm external terminal for VHF/UHF | | | |
| S 端子输入 (S VIDEO IN) S 1, 2 | | S video input (4-pin mini DIN) | | | |
| 视频输入 (VIDEO IN) 1, 2, 3 | | Video input (phono jack) | | | |
| 音频输入 (AUDIO IN) 1, 2, 3 | | Audio input (phono jacks): 500 mVrms, Impedance: 47 kilohms | | | |
| HD/DVD 输入 (HD/DVD In) 1/ 2 | | Supported formats: 1080p, 1080i, 720p, 576p, 576i, 480p, 480i<br>Y: 1 Vp-p, 75 ohms, 0.3V negative sync/PB/CB: 0.7 Vp-p, 75 ohms/<br>PR/CR: 0.7 Vp-p, 75 ohms | | | |
| HDMI 输入 (HDMI IN) 1, 2, 3 | | Video: 1080/24p, 1080p, 1080i, 720p, 576p, 576i, 480p, 480i<br>Audio: Two channel linear PCM<br>32, 44.1 and 48 kHz, 16, 20 and 24 bits<br>Analogue audio input (phono jacks): 500 mVrms, Impedance: 47 kilohms<br>(HDMI 输入 (HDMI IN) 1 only) | | | |
| 视频输出 (VIDEO OUT) | | Video output (phono jacks) | | | |
| 音频输出 (AUDIO OUT) | | Audio output (phono jacks) | | | |
| PC 输入 (PC IN) (RGB) | | PC Input (D-sub 15-pin)<br>G: 0.7 Vp-p, 75 ohms, non Sync on Green/B: 0.7 Vp-p, 75 ohms/<br>R: 0.7 Vp-p, 75 ohms/HD: 1-5 Vp-p/VD: 1-5 Vp-p<br>PC audio input (minijack) | | | |
| 耳机 (Headphone) | | Headphones jack | | | |
| USB 输入 (USB) | | USB port | | | |
| **Power and others** | | | | | |
| Power Requirements | | 220 V AC, 50 Hz | | | |
| Screen Size | | 46 inches (Approx. 116.8 cm measured diagonally) | 52 inches (Approx. 132.2 cm measured diagonally) | 46 inches (Approx. 116.8 cm measured diagonally) | 52 inches (Approx. 132.2 cm measured diagonally) |
| Display Resolution | | 1,920 dots (horizontal) × 1,080 lines (vertical) | | | |
| Power Consumption | | 300 W | 350 W | 300W | 350W |
| Standby Power Consumption* | | 0.5 W | | | |
| Dimensions** (w × h × d) | with stand (mm) | 1,262 × 795 × 322 | 1,415 × 890 × 384 | 1,135 × 779 × 306 | 1,278 × 874 × 384 |
| | without stand (mm) | 1,262 × 734 × 123 | 1,415 × 827 × 125 | 1,135 × 734 × 122 | 1,278 × 832 × 123 |
| Mass** | with stand (kg) | 38.0 | 49.0 | 32.5 | 43.5 |
| | without stand (kg) | 33.0 | 42.0 | 28.5 | 36.0 |
| Optional Accessories | | | | Wall-Mount Bracket SU-WL500 | |
| 产品的使用条件 | | | | | |
| 环境温度 | | 5°C - 35°C | | | |
| 相对湿度 | | 20% - 80% | | | |
| 大气压力 | | 86 kPa - 106 kPa | | | |

* Specified standby power is reached after the TV finishes necessary internal processes.
** The values of dimensions and mass are approximate.

| Model name | | KLV-46X300A | KLV-52X300A | KLV-46W380A | KLV-52W380A |
|---|---|---|---|---|---|
| 显示规格 | | | | | |
| 亮度＊ | | 350 cd/m$^2$ 以上** | | | |
| 对比度＊ | | 150:1 以上** | | | |
| 可视角($L_0$/3)＊ | | 水平110° 垂直80° 以上** | | 水平110° 垂直80° 以上 | |
| 清晰度（电视线)＊ | RF模拟信号 | 水平350，垂直400 线以上** | | | |
| | SDTV | 水平450，垂直450 线以上** | | | |
| | HDTV | 水平720，垂直720 线以上** | | | |
| 色域覆盖率＊ | | 32 % 以上** | | | |
| 运动图像拖尾时间＊ | | 20 ms 以下** | | | |
| 声音特性＊ | | 额定输入时声压总谐波失真10% 以下** | | | |

＊ 根据SJ/T11348-2006 《数字电视平板显示器测量方法》。

** 该指标为SJ/T11343-2006 《数字电视液晶显示器通用规范》之常温性能要求值。

Design and specifications are subject to change without notice.

### PC Input Signal Reference Chart

| Signals | Horizontal (Pixel) | Vertical (Line) | Horizontal frequency (kHz) | Vertical frequency (Hz) | Standard |
|---|---|---|---|---|---|
| VGA | **640** | **480** | **31.5** | **60** | **VGA** |
| | 640 | 480 | 37.5 | 75 | VESA |
| | 720 | 400 | 31.5 | 70 | VGA-T |
| SVGA | **800** | **600** | **37.9** | **60** | **VESA Guidelines** |
| | 800 | 600 | 46.9 | 75 | VESA |
| XGA | **1024** | **768** | **48.4** | **60** | **VESA Guidelines** |
| | 1024 | 768 | 56.5 | 70 | VESA |
| | 1024 | 768 | 60.0 | 75 | VESA |
| WXGA | **1280** | **768** | **47.4** | **60** | **VESA** |
| | **1280** | **768** | **47.8** | **60** | **VESA** |
| | 1280 | 768 | 60.3 | 75 | |
| | **1360** | **768** | **47.7** | **60** | **VESA** |
| SXGA | **1280** | **1024** | **64.0** | **60** | **VESA** |
| | 1280 | 1024 | 80.0 | 75 | VESA |
| HDTV | **1920** | **1080** | **67.5** | **60** | |

- This TV's PC input does not support Sync on Green or Composite Sync.
- This TV's PC input does not support interlaced signals.
- For the best picture quality, it is recommended to use the signals (boldfaced) in the above chart with a 60 Hz vertical frequency from a personal computer. In plug and play, signals with a 60 Hz vertical frequency will be selected automatically.

# WARNINGS AND CAUTIONS

### CAUTION

These servicing instructions are for use by qualified service personnel only.
To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

### WARNING!!

An isolation transformer should be used during any service to avoid possible shock hazard, because of live chassis.
The chassis of this receiver is directly connected to the ac power line.

### ⚠ SAFETY-RELATED COMPONENT WARNING!!

Replace all components with Sony parts whose part numbers appear as shown in this manual or in supplements published by Sony.

# SAFETY-RELATED COMPONENT WARNING

It is essential that all critical parts be replaced only with the part number specified in the electrical parts list to prevent electric shock, fire, or other hazard.

NOTE: Do not modify the original design without obtaining written permission from the manufacturer or you will void the original parts and labor guarantee.

### USE CAUTION WHEN HANDLING THE LCD PANEL

When repairing the LCD panel, be sure you are grounded by using a wrist band.

When repairing the LCD panel on the wall, the LCD panel must be secured using the 4 mounting holes on the rear cover.

1) Do not press on the panel or frame edge to avoid the risk of electric shock.
2) Do not scratch or press on the panel with any sharp objects.
3) Do not leave the module in high temperatures or in areas of high humidity for an extended period of time.
4) Do not expose the LCD panel to direct sunlight.
5) Avoid contact with water. It may cause a short circuit within the module.
6) Disconnect the AC power when replacing the backlight (CCFL) or inverter circuit.
   (High voltage occurs at the inverter circuit at 650Vrms.)
7) Always clean the LCD panel with a soft cloth material.
8) Use care when handling the wires or connectors of the inverter circuit. Damaging the wires may cause a short.
9) Protect the panel from ESD to avoid damaging the electronic circuit (C-MOS).

# SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly soldered connections. Check the entire board surface for solder splashes and bridges.

2. Check the interboard wiring to ensure that no wires are "pinched" or touching high-wattage resistors.

3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.

4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.

5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.

6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.

7. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

### Leakage Test

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes).
Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instructions.

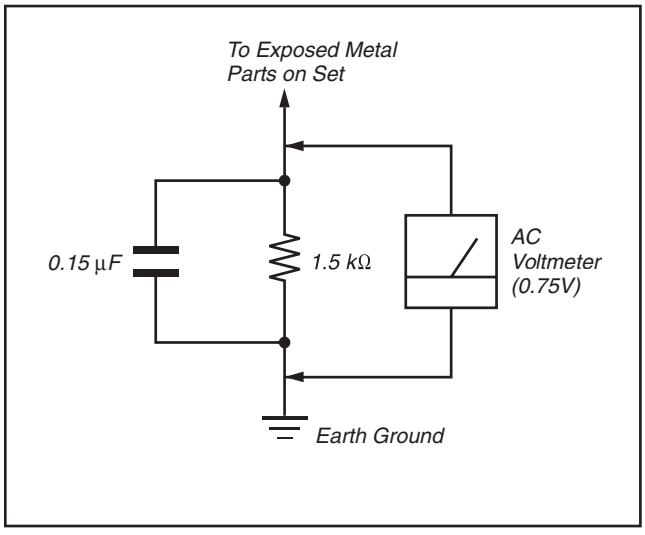
2. A battery-operated AC milliampmeter. The Data Precision 245 digital multimeter is suitable for this job.

3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low voltage scale.
   The Simpson's 250 and Sanwa SH-63TRD are examples of passive VOMs that are suitable. Nearly all battery-operated digital multimeters that have a 2 VAC range are suitable (see Figure A).

### How to Find a Good Earth Ground

A cold-water pipe is a guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms.

If a cold-water pipe is not accessible, connect a 60- to 100-watt trouble- light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side on the line; the lamp should light at normal brilliance if the screw is at ground potential (see Figure B).




**FigureA. Using an AC voltmeter to check AC leakage.**

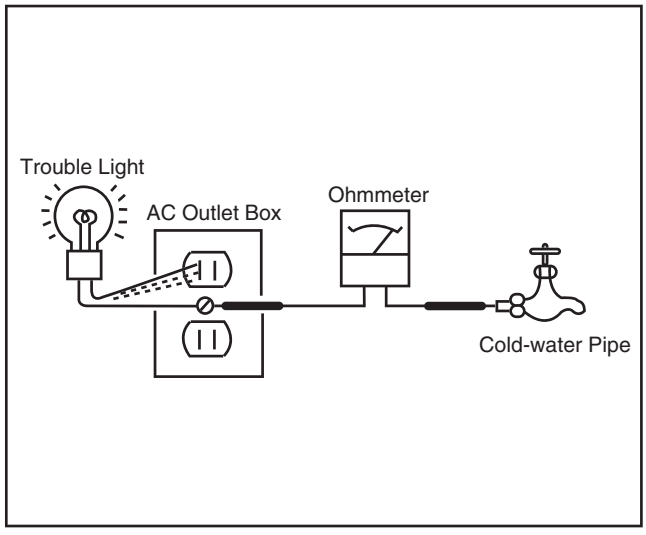



**Figure B. Checking for earth ground.**

# SELF DIAGNOSIS FUNCTION

The units in this manual contain a self-diagnostic function. If an error occurs, the STANDBY LED will automatically begin to flash. The number of times the LED flashes translates to a probable source of the problem.
A definition of the STANDBY LED flash indicators is listed in the instruction manual for the user's knowledge and reference.
If an error symptom cannot be reproduced, the remote commander can be used to review the failure occurrence data stored in memory to reveal past problems and how often these problems occur.

## 1-1. DIAGNOSTIC TEST INDICATORS

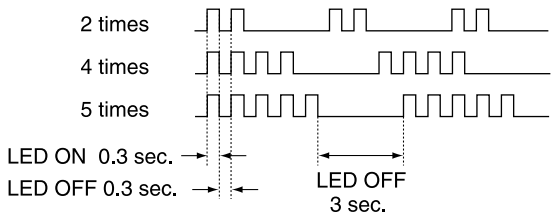
When an error occurs, the STANDBY LED will flash a set number of times to indicate the possible cause of the problem.
If there is more than one error, the LED will identify the first of the problem areas.
Result for all of the following diagnostic items are displayed on screen.
If the screen displays a "0", no error has occurred .

| Number of times STANDY LED (Red) flashes | Monitoring Items (Screen Display) | Diagnostic Item Description |
|---|---|---|
| 2 times | POW OVP | Main Power Over Voltage Protection |
| 3 times | POW ERR1 | Power Error |
| 5 times | T_CON | T_CON Error |
| 6 times | BACKLITE | Back Light Error (Panel Inverter) |
| 7 times | TEMP ERR | Temperature Abnormal Detection |
| 8 times | AUD PROT | Audio Abnormal Detection |
| 9 times | FAN_ERR | FAN Error (Not Detected. Display Only) |
| 13 times | BALANCER | Panel Balancer Error |

## 1-2. DISPLAY OF STANDBY LED FLASH COUNT

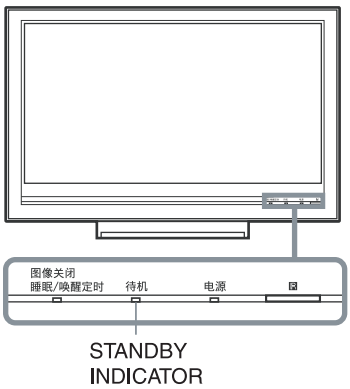
< KLV-46/52X300A >

[ FLASH COUNT ]




Note: One flash counts is not self-diagnostic.

< KLV-46/52W380A >




## 1-3. STOPPING THE STANDBY FLASH

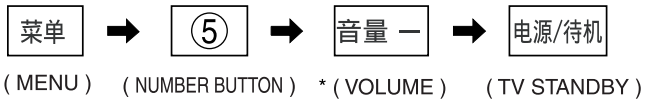
Turn off the power switch on the TV main unit or unplug the power cord from the outlet to stop the STANDBY lamp from flashing.

## 1-4. SELF-DIAGNOSTIC SCREEN DISPLAY

For errors with symptoms such as “power sometimes shuts off” or “screen sometimes goes out” that cannot be confirmed, it is possible to bring up past occurrences of failure for confirmation on the screen:

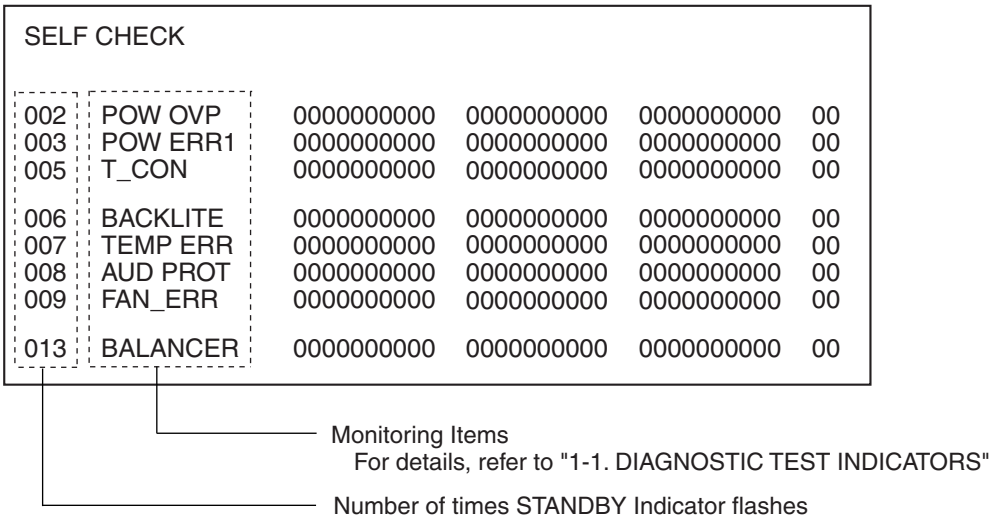
### 1-4-1. To Bring Up Screen Test

In standby mode, press buttons on the remote commander sequentially in rapid succession as shown below:




* : Note that this differs from entering the service mode (volume +)

[ SELF-DIAGNOSTIC SCREEN DISPLAY ]




Since the diagnostic results displayed on the screen are not automatically cleared, always check the self-diagnostic screen After you have completed the repairs, clear the result display to “0”.

## 1-5. Quitting Self-diagnostic screen

To quit the entire self-diagnostic screen, turn off the power switch on the remote commander or the main unit.

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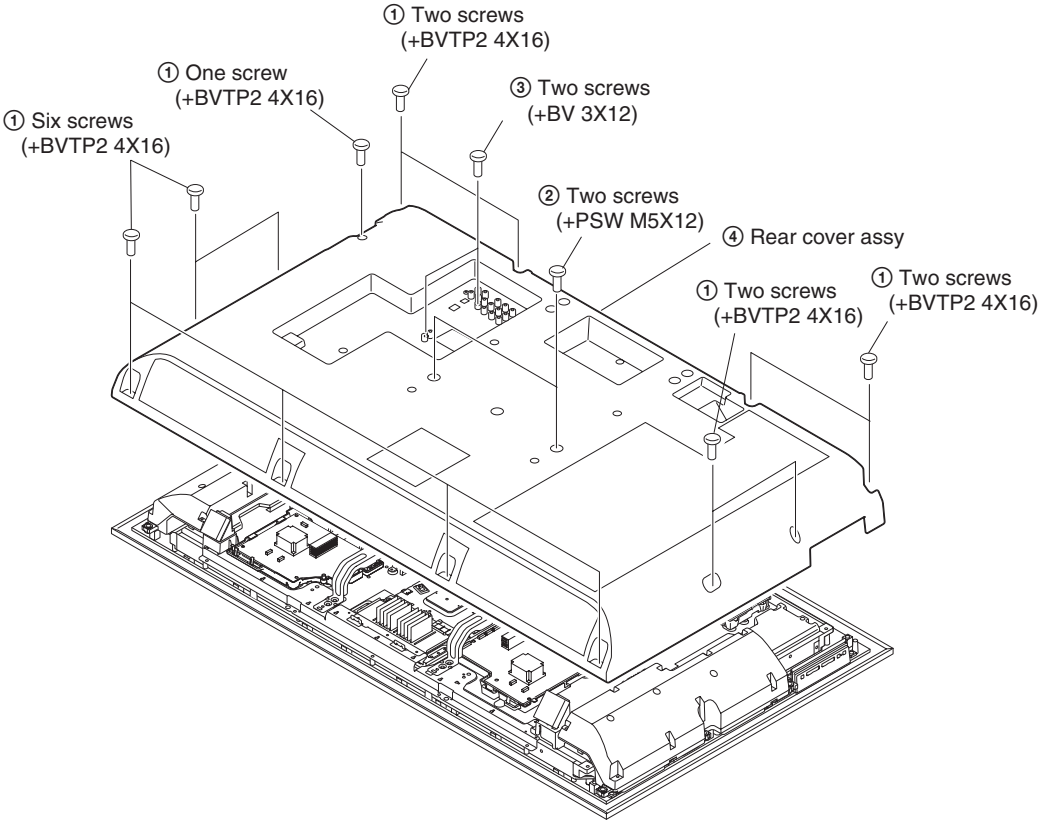
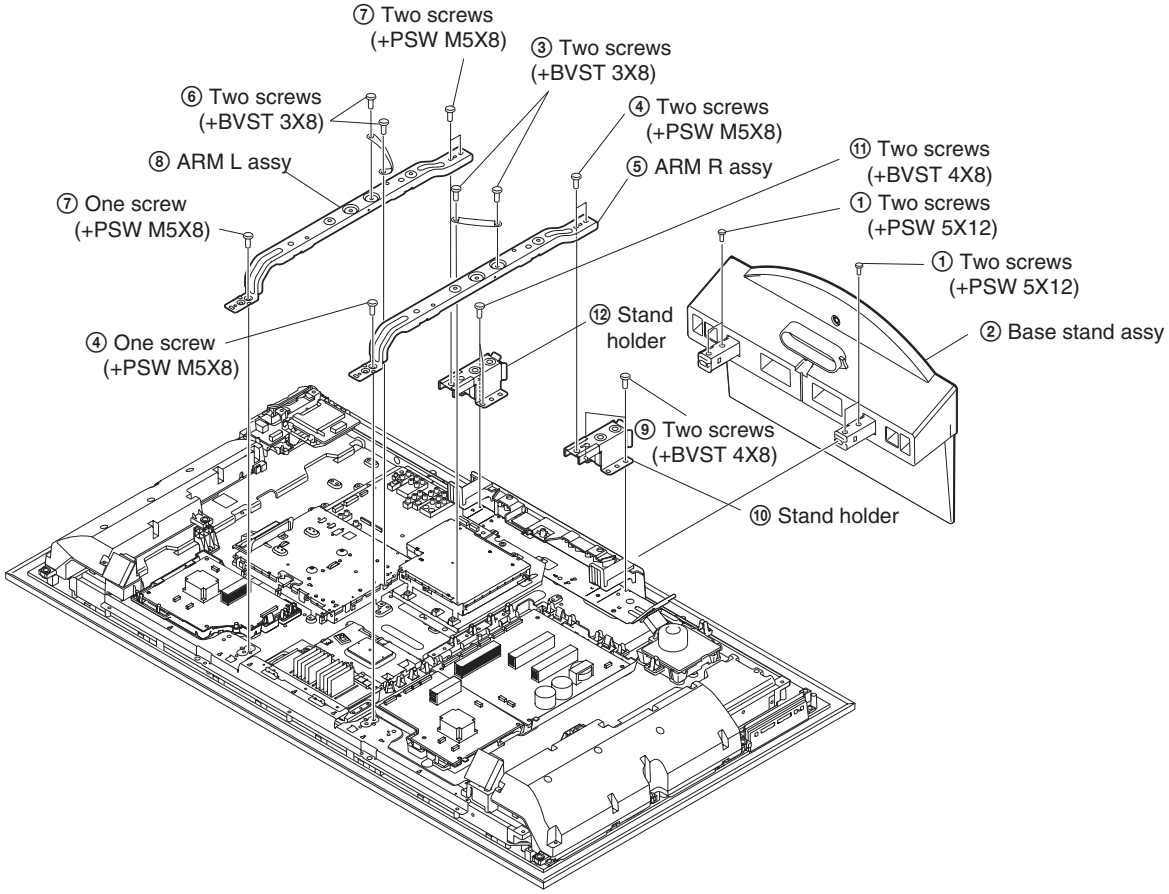
# SECTION 1
# DISASSEMBLY

## 1-1. KLV-46X300A

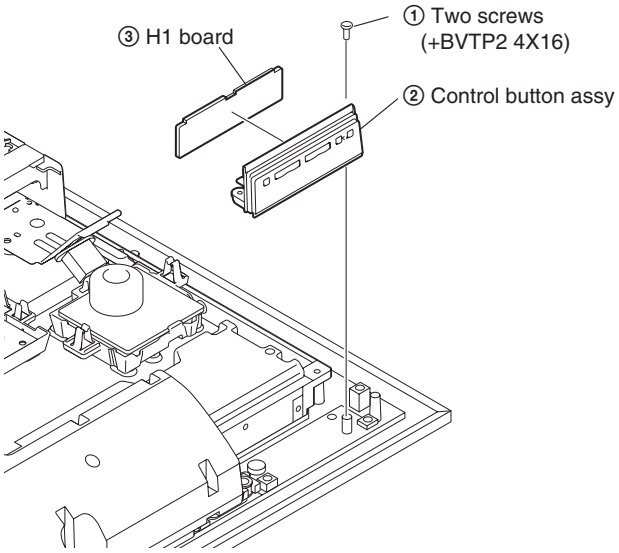
### 1-1-1. REAR COVER ASSY REMOVAL



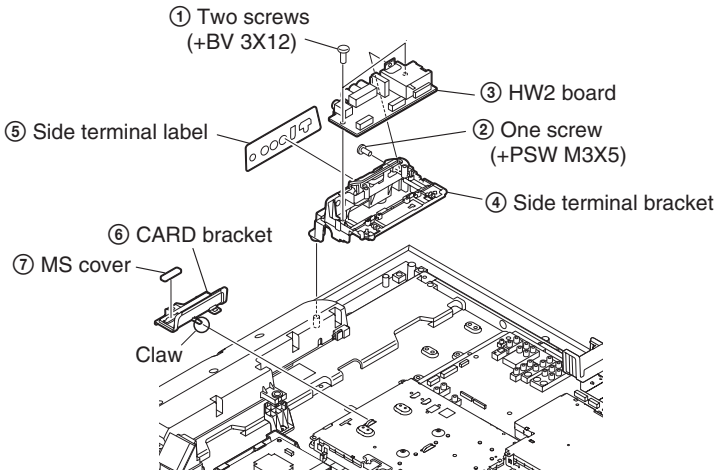

### 1-1-2. STAND ASSY AND ARM ASSY REMOVAL



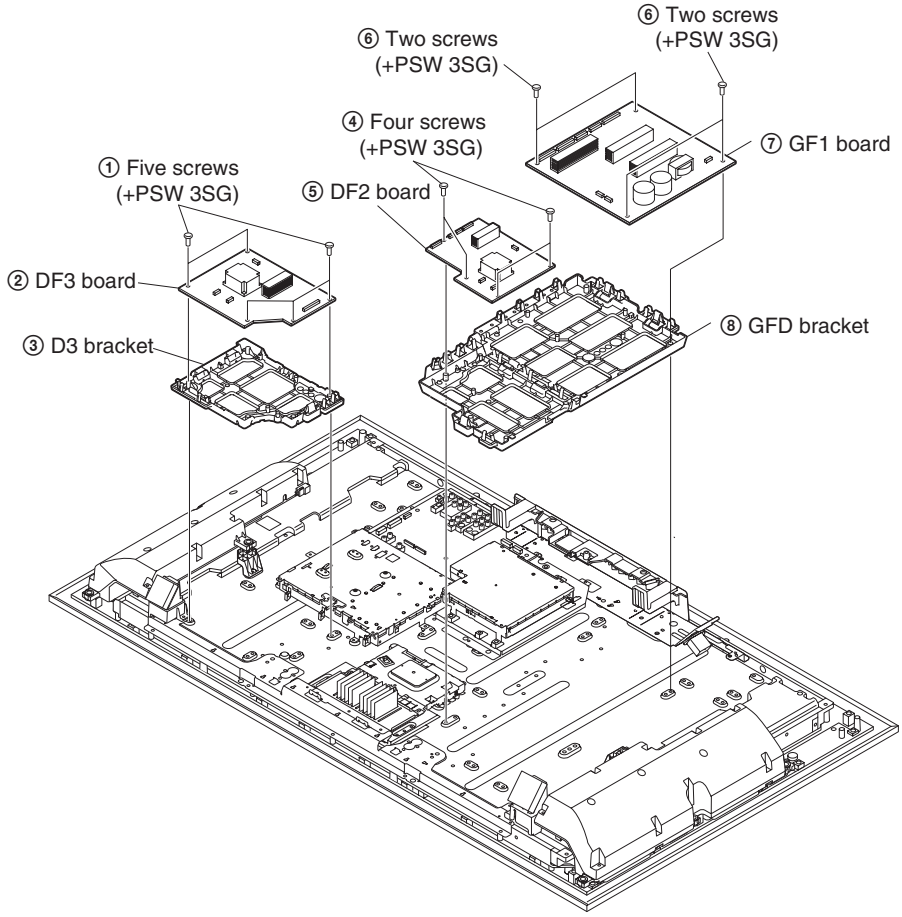
### 1-1-3. H1 BOARD REMOVAL



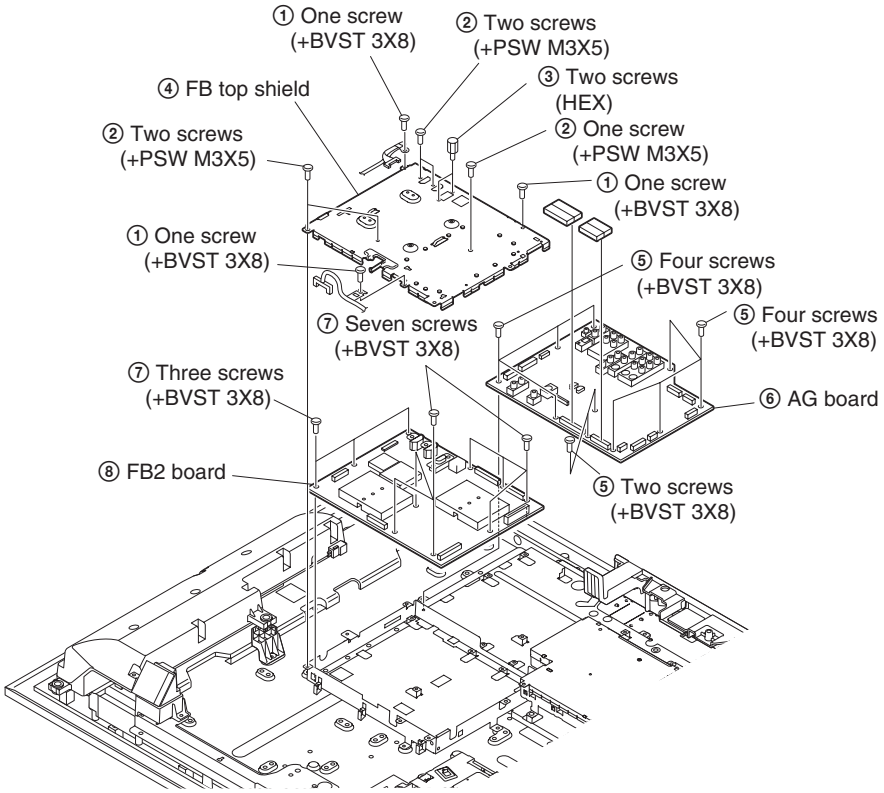

### 1-1-4. HW2 BOARD REMOVAL



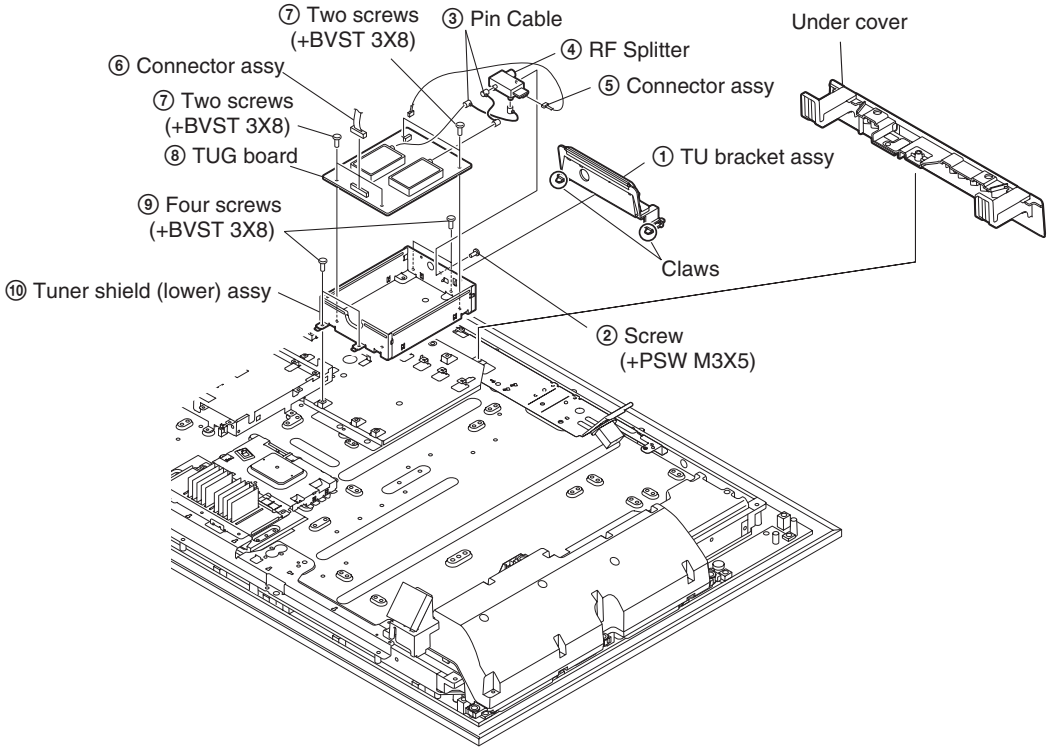
### 1-1-5. DF1 BOARD AND GF1 BOARD REMOVAL



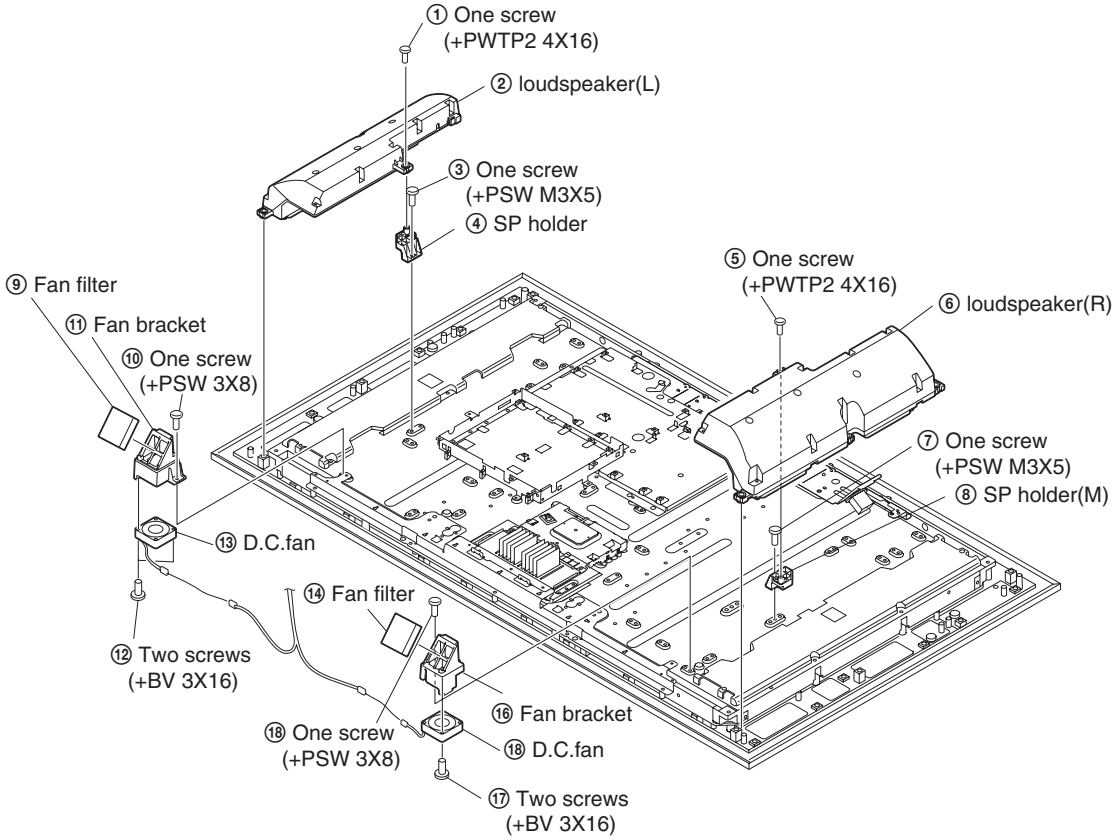

### 1-1-6. AG BOARD AND FB2 BOARD REMOVAL



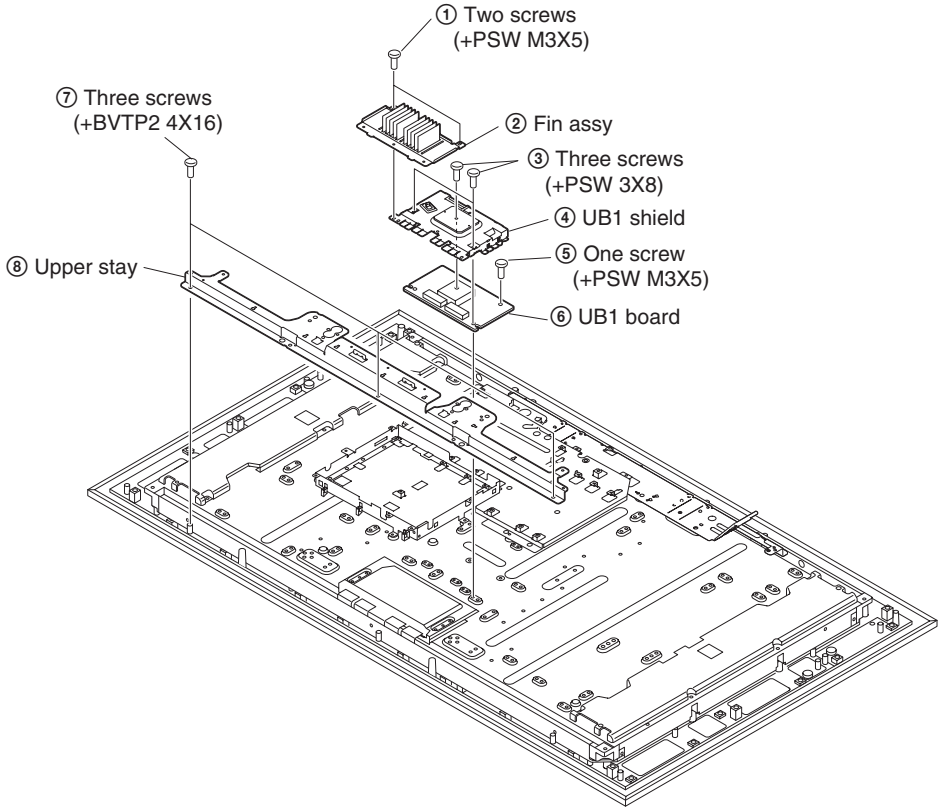
### 1-1-7. TUG BOARD REMOVAL



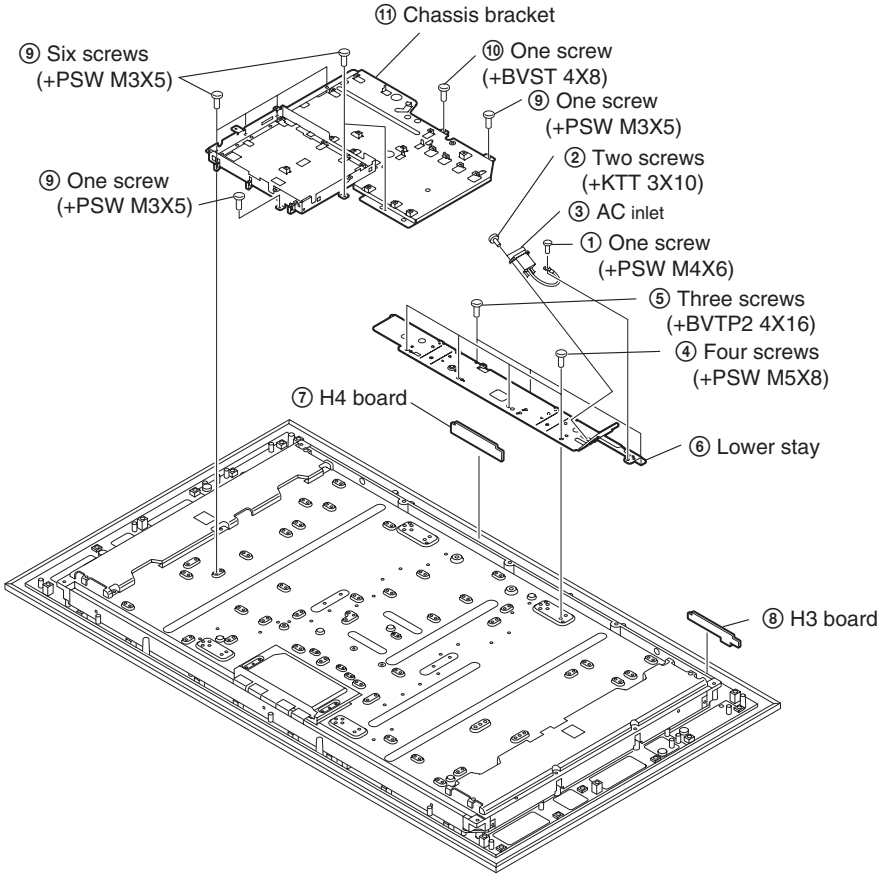

### 1-1-8. SPEAKER AND FAN REMOVAL



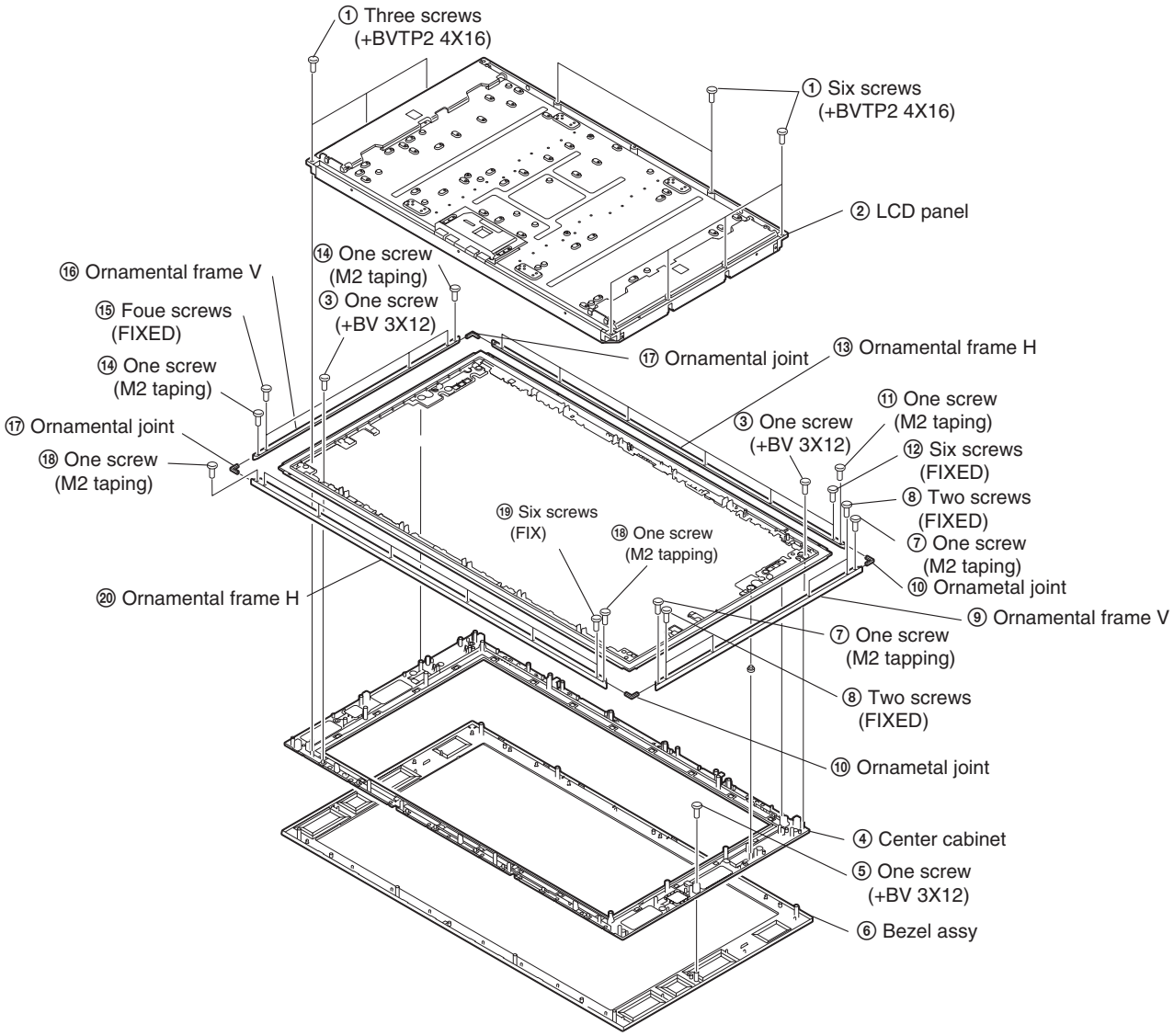
### 1-1-9. UB1 BOARD REMOVAL




### 1-1-10. H3 BOARD AND H4 BOARD AND AC INLET REMOVAL



## 1-1-11. LCD PANEL AND FRONT CABINET ASSY REMOVAL


① Three screws (+BVTP2 4X16)
① Six screws (+BVTP2 4X16)
② LCD panel
⑭ One screw (M2 taping)
③ One screw (+BV 3X12)
⑯ Ornamental frame V
⑮ Foue screws (FIXED)
⑭ One screw (M2 taping)
⑰ Ornamental joint
⑱ One screw (M2 taping)
⑰ Ornamental joint
⑬ Ornamental frame H
⑪ One screw (M2 taping)
③ One screw (+BV 3X12)
⑫ Six screws (FIXED)
⑧ Two screws (FIXED)
⑦ One screw (M2 taping)
⑩ Ornametal joint
⑨ Ornamental frame V
⑲ Six screws (FIX)
⑱ One screw (M2 tapping)
⑳ Ornamental frame H
⑦ One screw (M2 tapping)
⑧ Two screws (FIXED)
⑩ Ornametal joint
④ Center cabinet
⑤ One screw (+BV 3X12)
⑥ Bezel assy

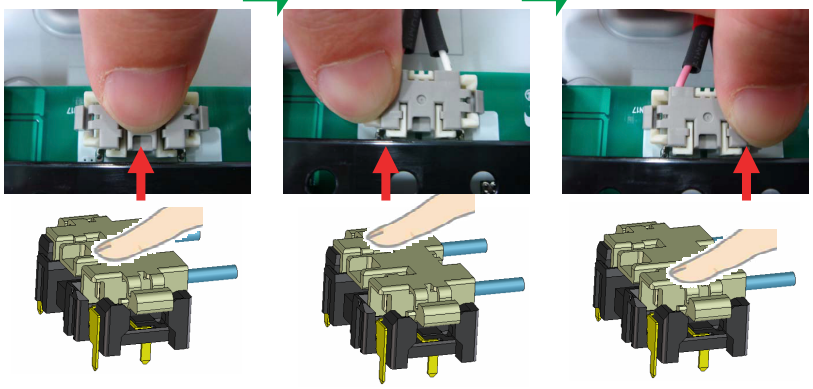
## TO INSERT THE CONNECTOR

The connector might not be properly locked when only pressed from the middle.
Be sure to press both sides to confirm it is property locked.

① Press the middle part of the connector to insert till it locks.

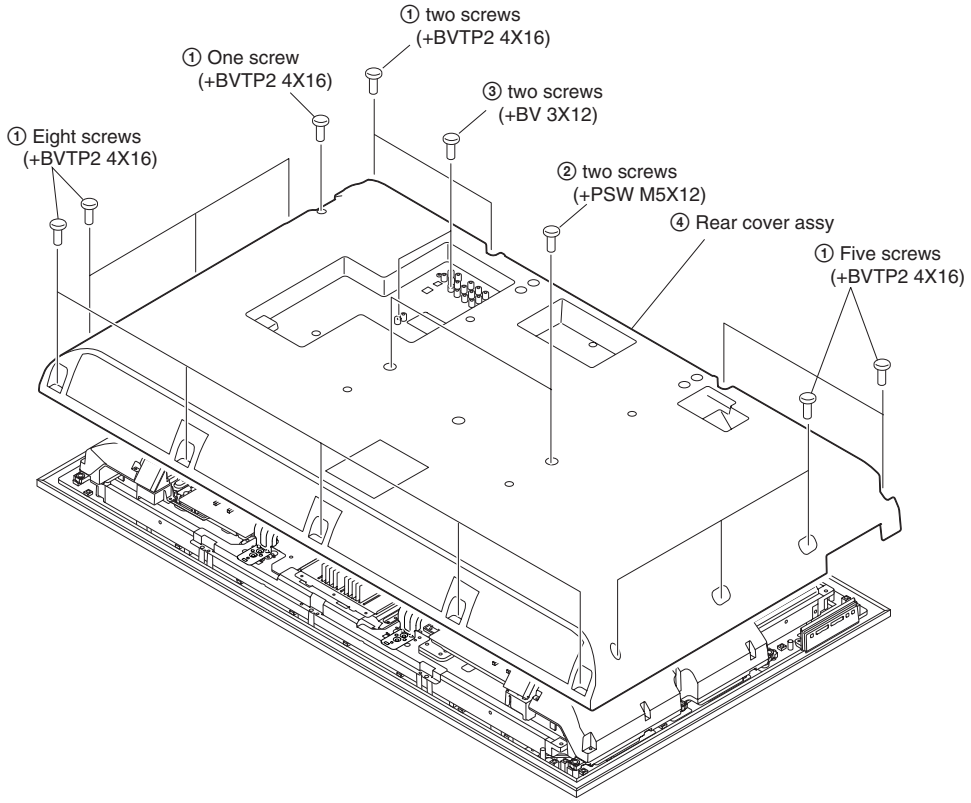
② Press the right side to confirm it is locked.

③ Press the left side to confirm it is locked.

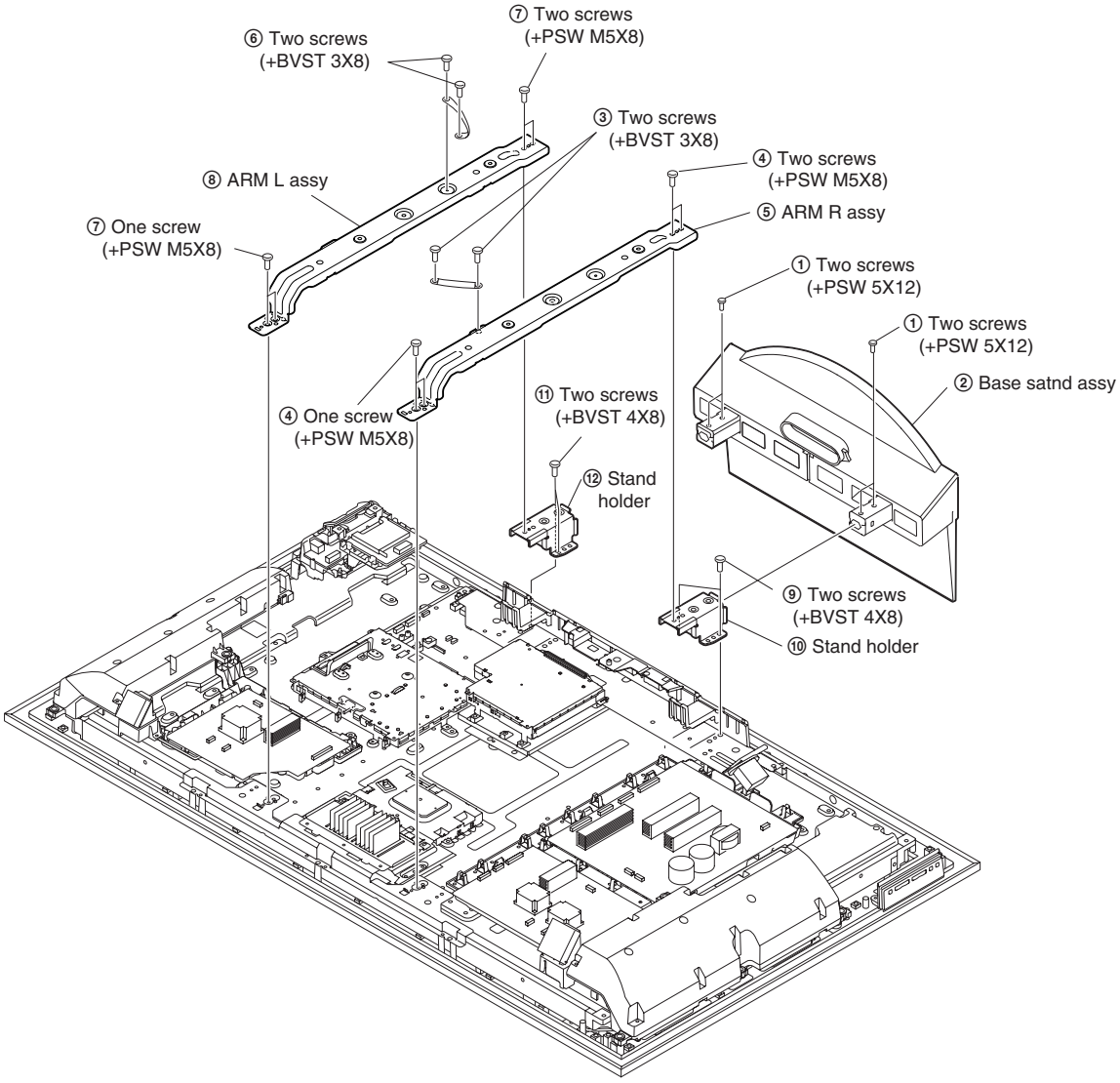


## 1-2. KLV-52X300A

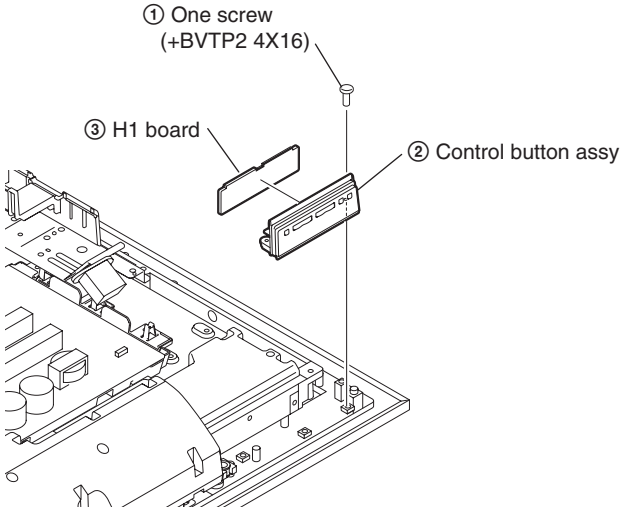
### 1-2-1. REAR COVER ASSY REMOVAL



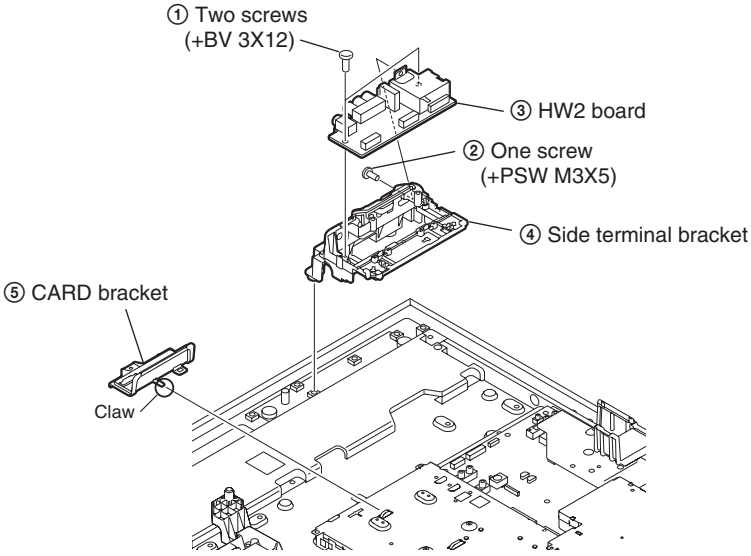

### 1-2-2. STAND ASSY AND ARM ASSY REMOVAL



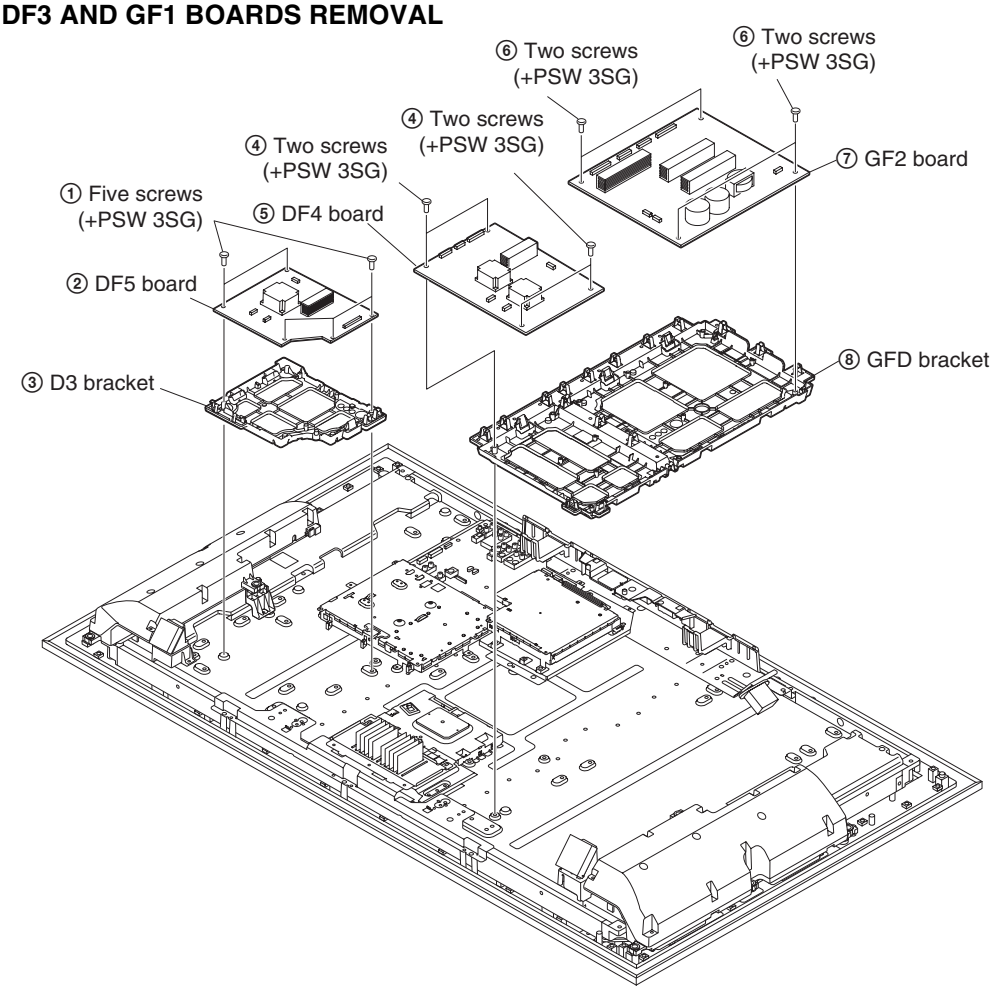
### 1-2-3. H1 BOARD REMOVAL



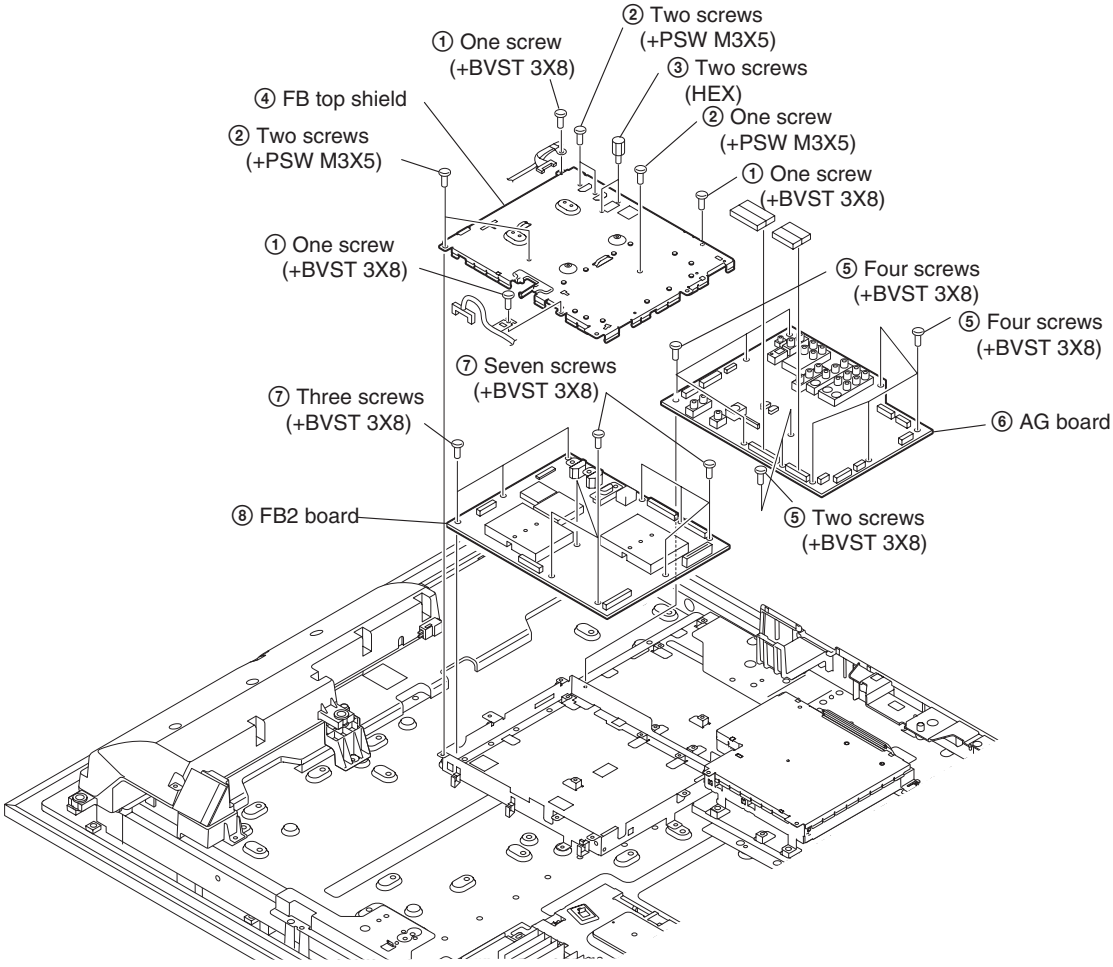

### 1-2-4. HW2 BOARD REMOVAL



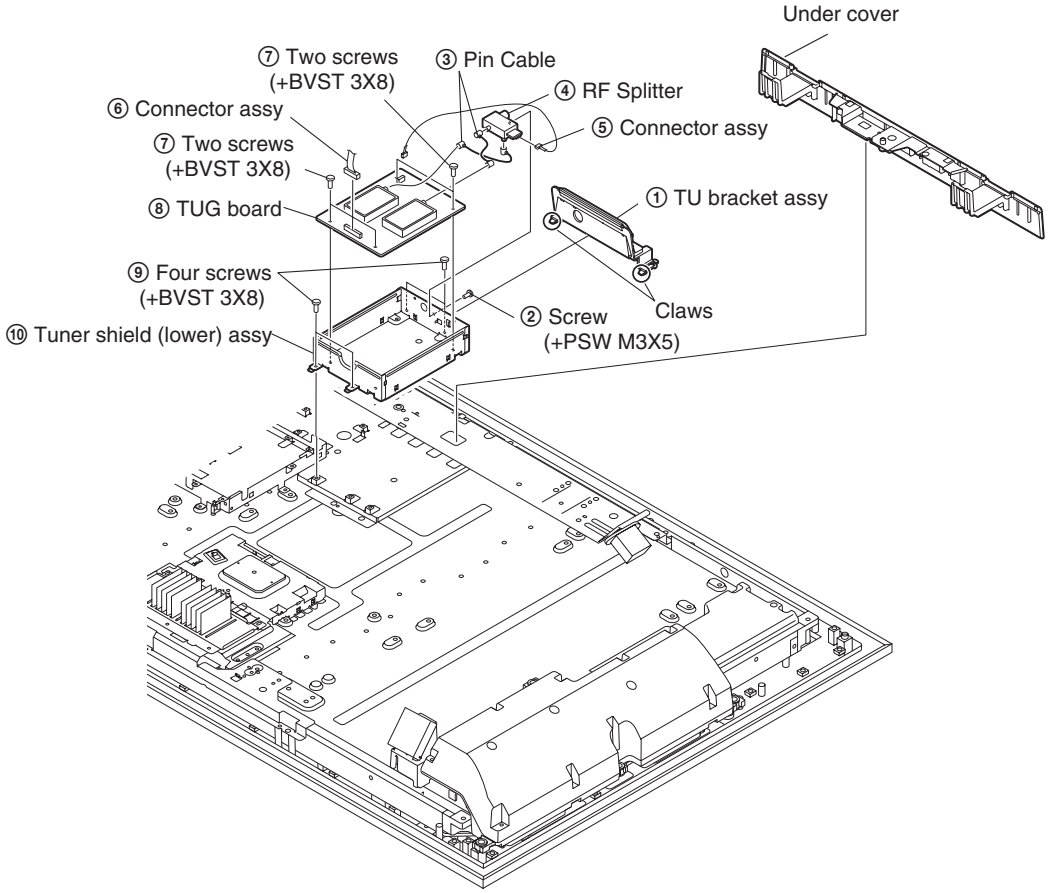
### 1-2-5. DF2, DF3 AND GF1 BOARDS REMOVAL



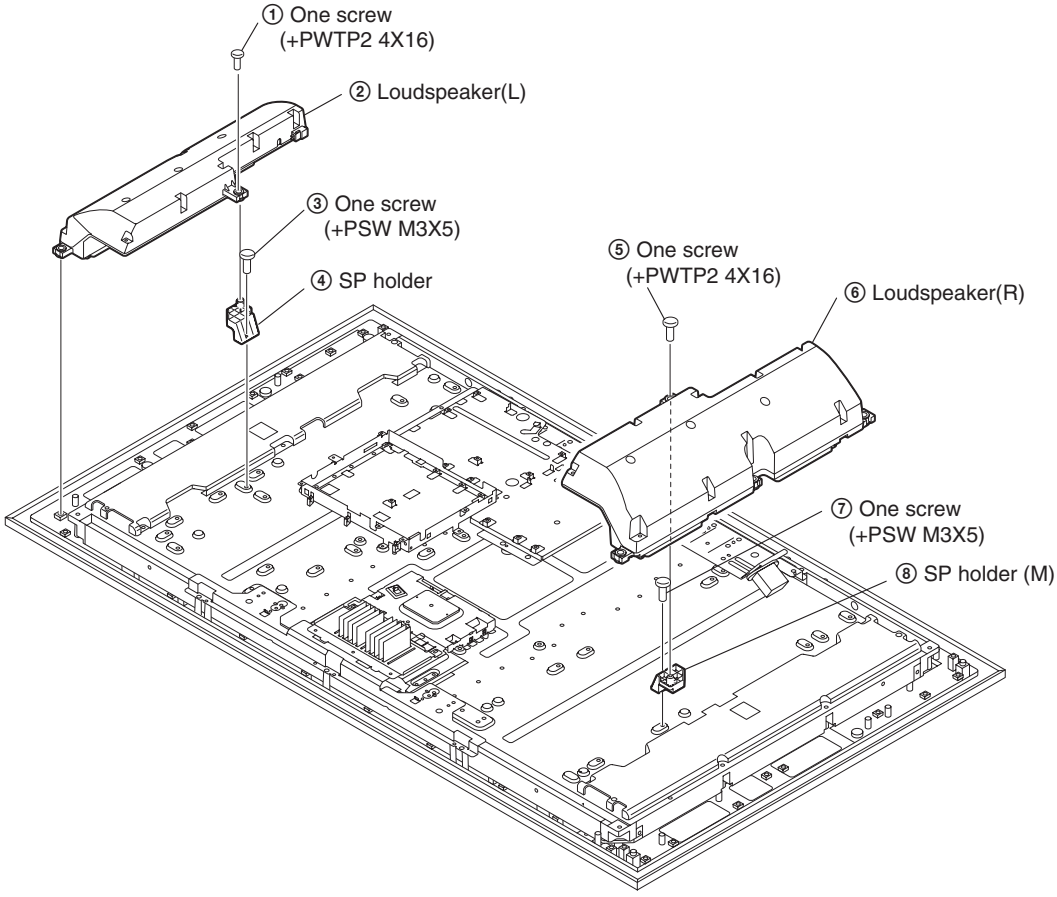

### 1-2-6. AG AND FB2 BOARDS REMOVAL



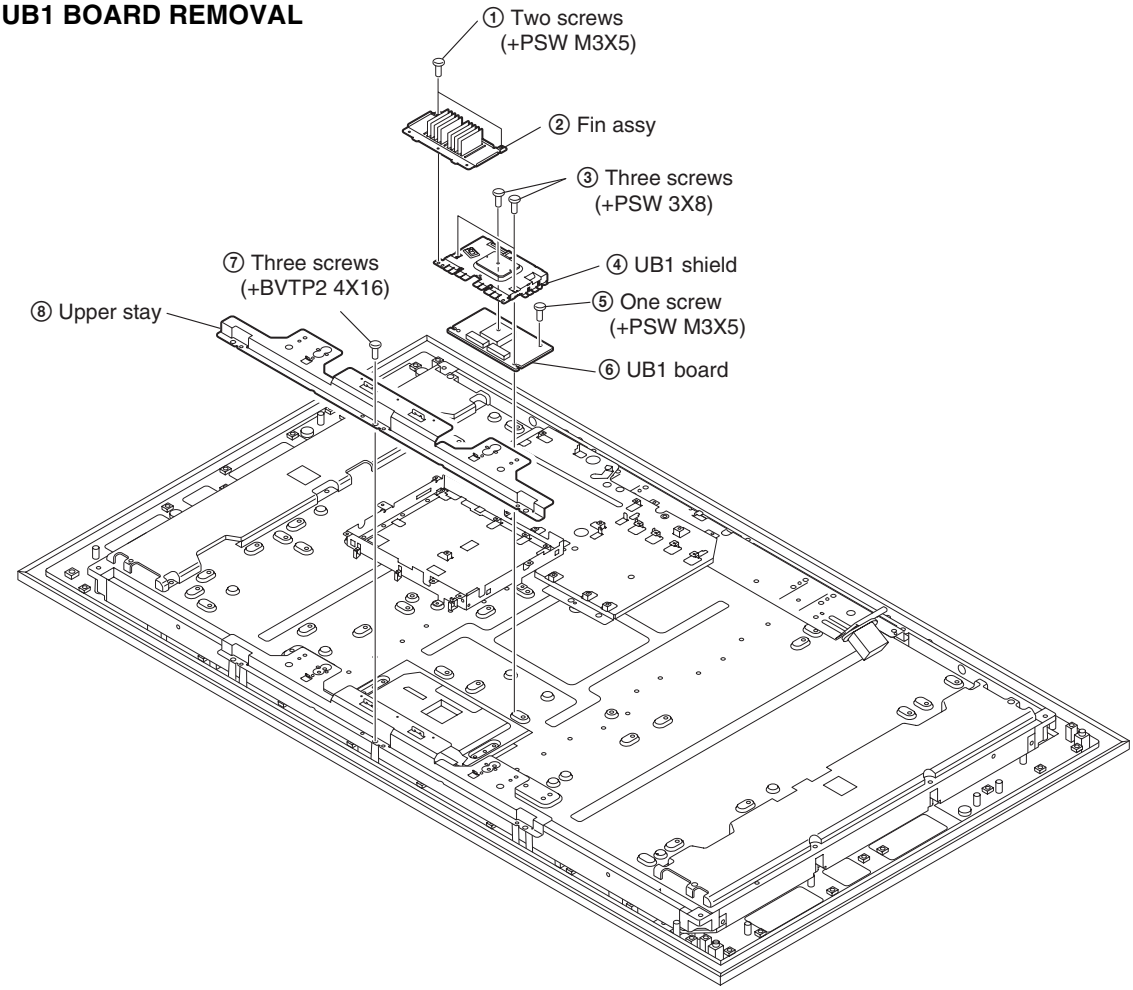
## 1-2-7. TUG BOARD REMOVAL



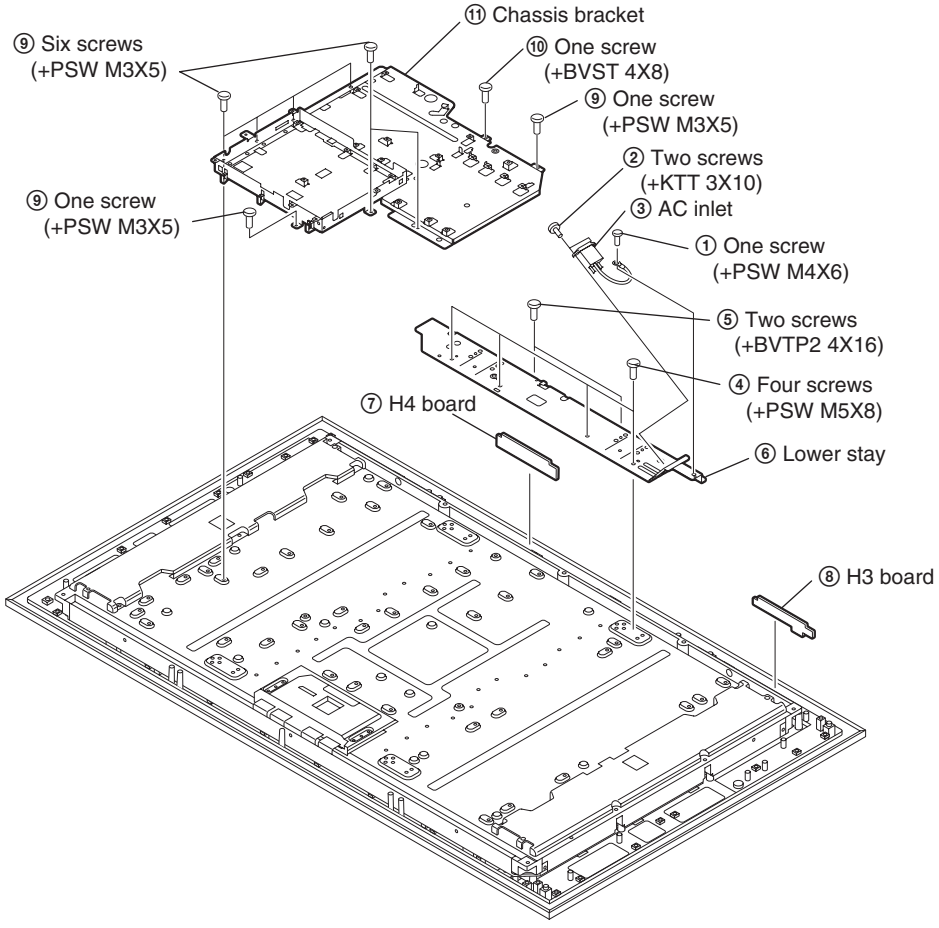

## 1-2-8. SPEAKER AND FAN REMOVAL



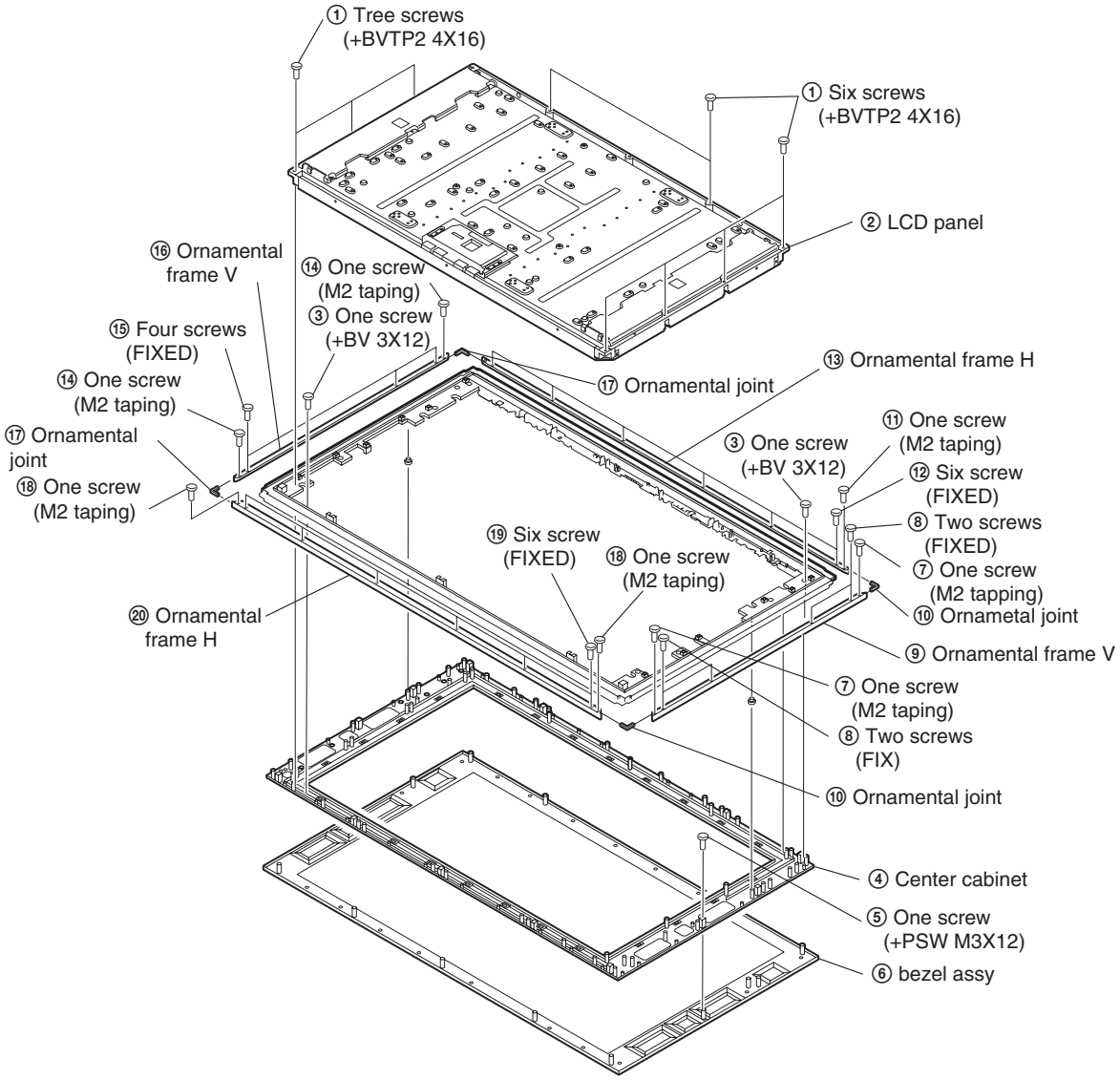
## 1-2-9. UB1 BOARD REMOVAL




## 1-2-10. H3 BOARD AND H4 BOARD AND AC INLET REMOVAL



## 1-2-11. LCD PANEL AND FRONT CABINET ASSY REMOVAL


① Tree screws (+BVTP2 4X16)
① Six screws (+BVTP2 4X16)
② LCD panel
⑯ Ornamental frame V
⑭ One screw (M2 taping)
③ One screw (+BV 3X12)
⑮ Four screws (FIXED)
⑭ One screw (M2 taping)
⑰ Ornamental joint
⑱ One screw (M2 taping)
⑰ Ornamental joint
⑬ Ornamental frame H
⑪ One screw (M2 taping)
③ One screw (+BV 3X12)
⑫ Six screw (FIXED)
⑧ Two screws (FIXED)
⑦ One screw (M2 tapping)
⑩ Ornametal joint
⑨ Ornamental frame V
⑲ Six screw (FIXED)
⑱ One screw (M2 taping)
⑳ Ornamental frame H
⑦ One screw (M2 taping)
⑧ Two screws (FIX)
⑩ Ornamental joint
④ Center cabinet
⑤ One screw (+PSW M3X12)
⑥ bezel assy

## TO INSERT THE CONNECTOR

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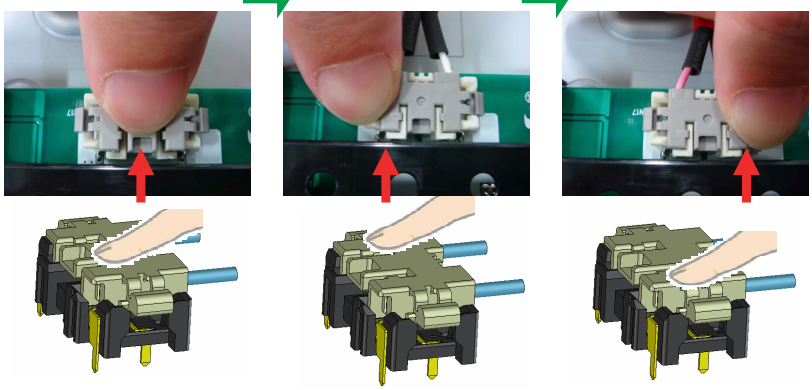
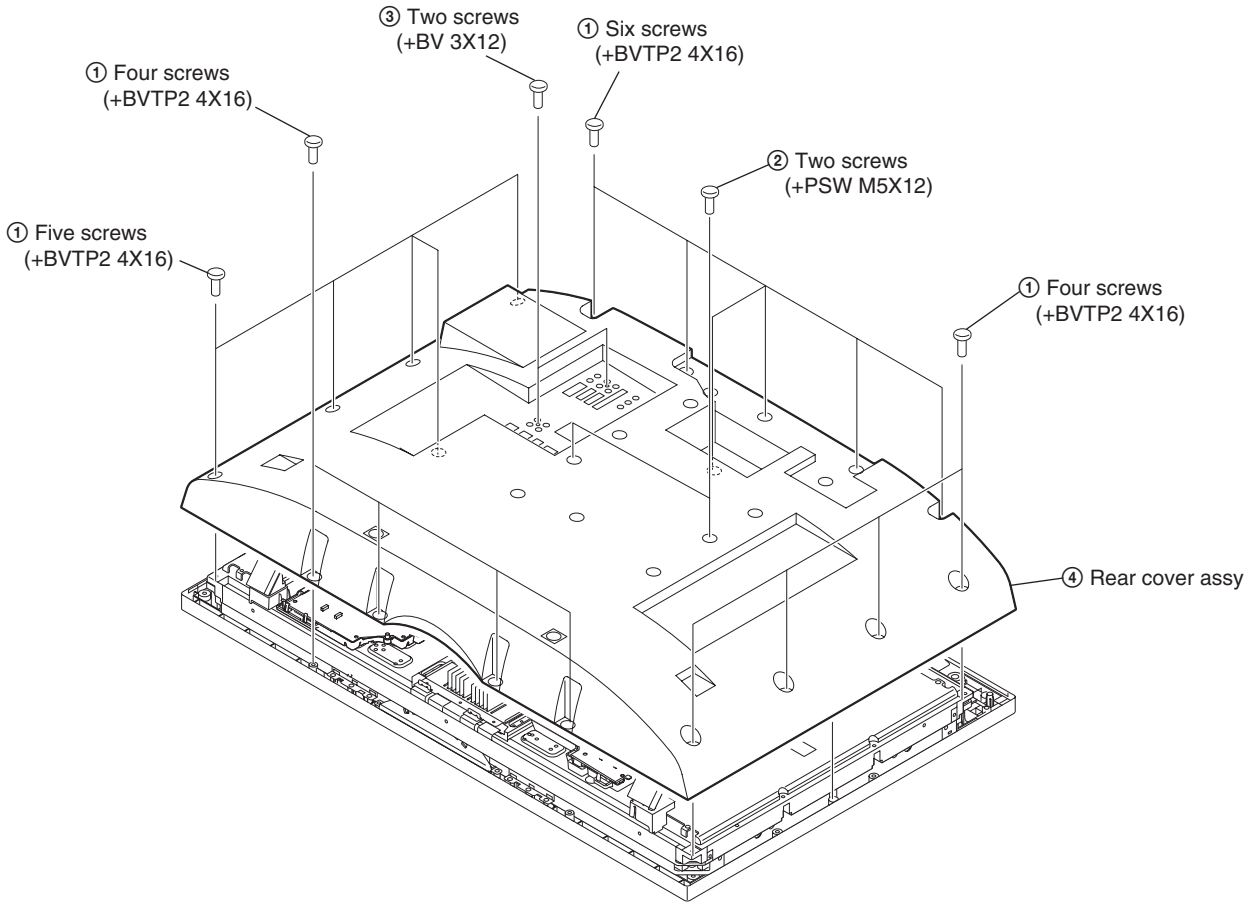
② Press the right side to confirm it is locked.

③ Press the left side to confirm it is locked.

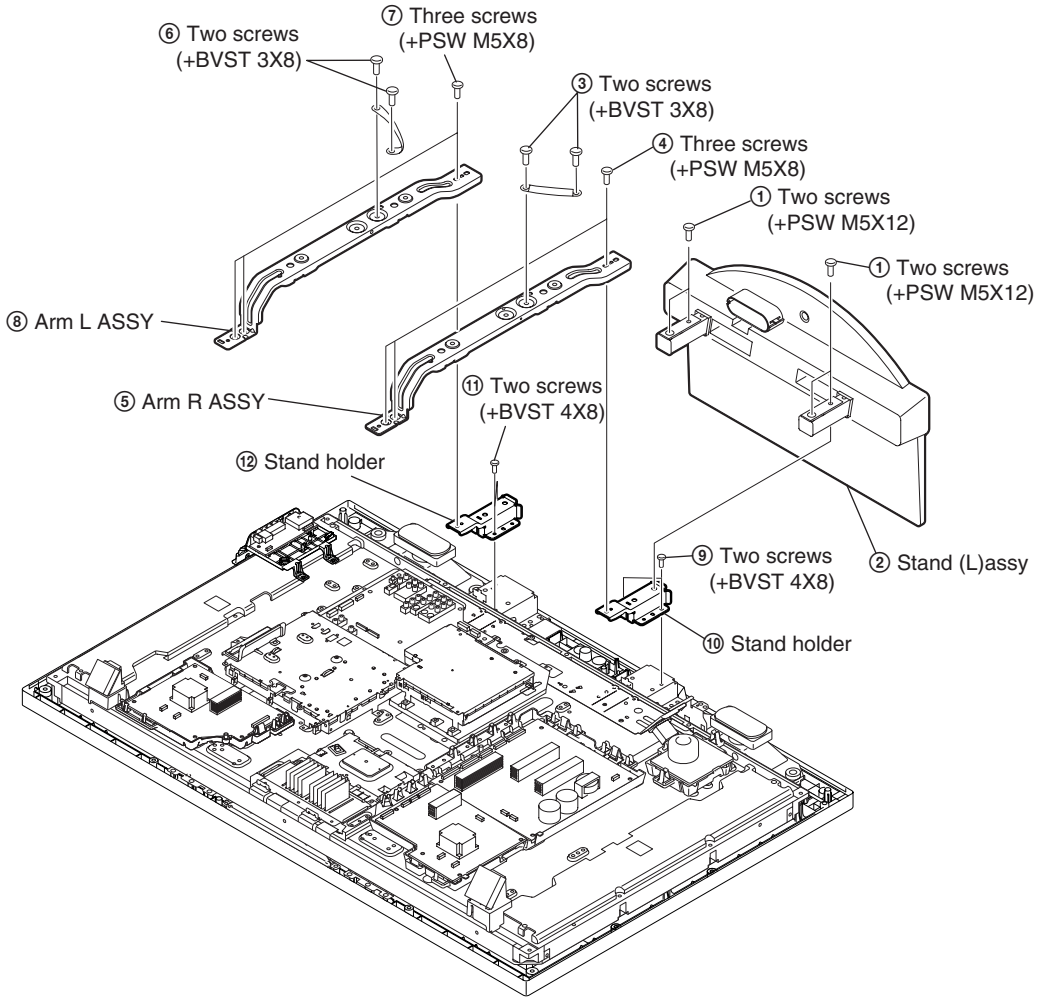


## 1-3. KLV-46W380A

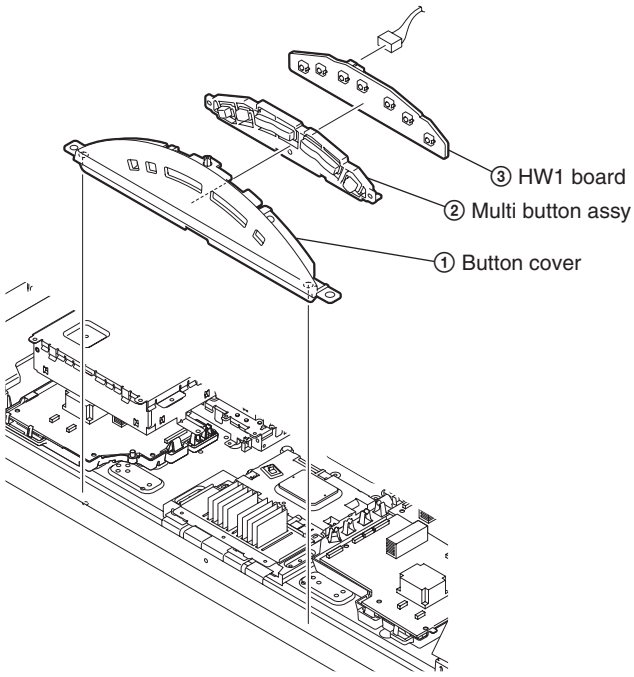
### 1-3-1. REAR COVER ASSY REMOVAL



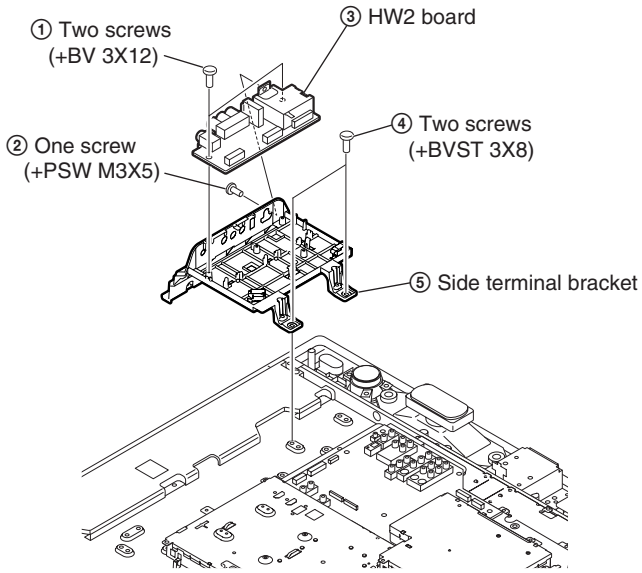

### 1-3-2. STAND ASSY AND ARM ASSY REMOVAL



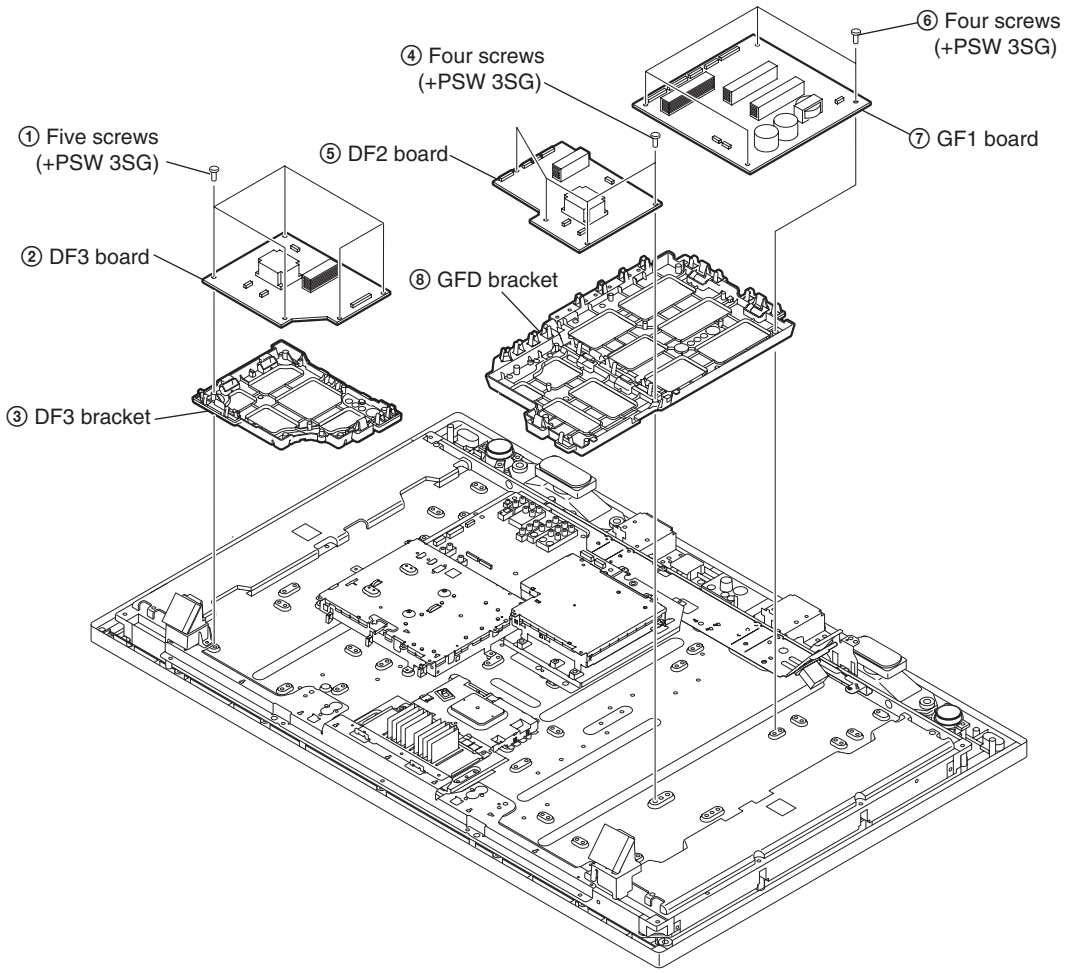
### 1-3-3. HW1 BOARD REMOVAL



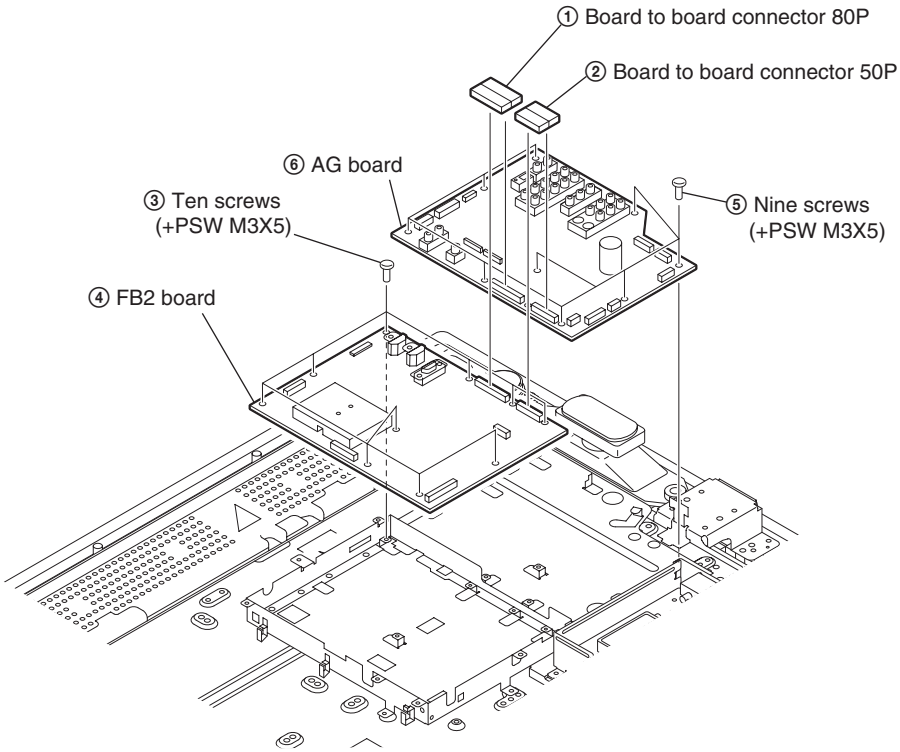

### 1-3-4. HW2 BOARD REMOVAL



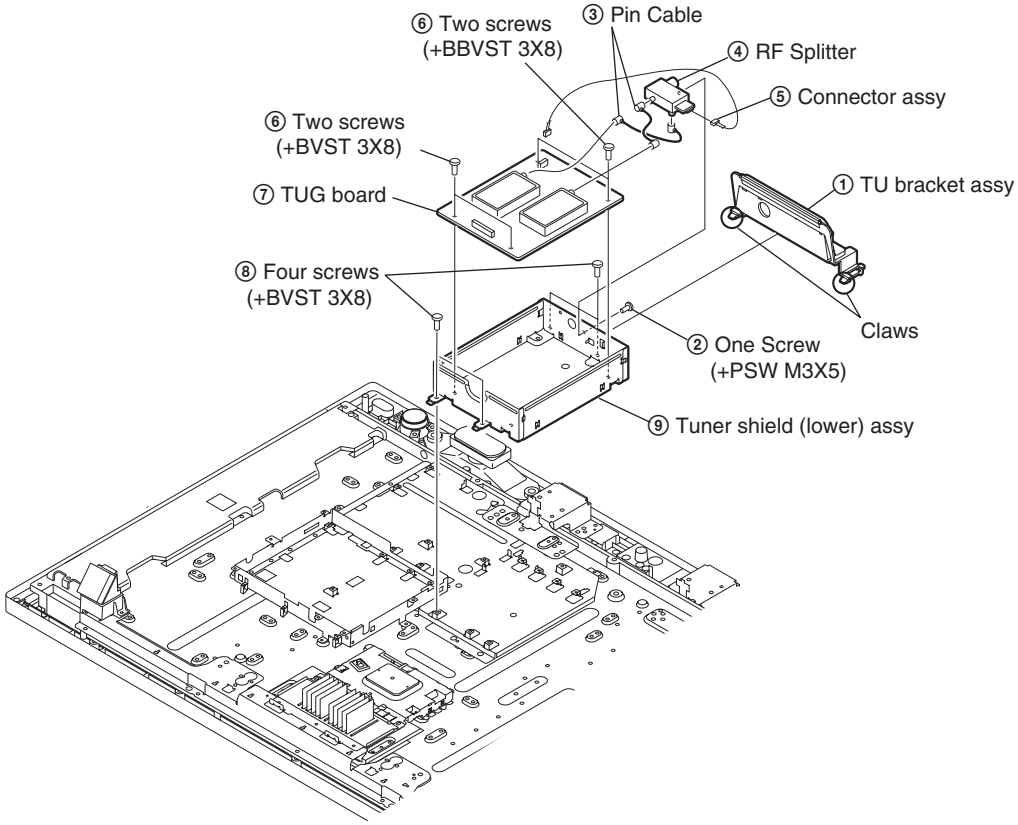
### 1-3-5. DF2, DF3 AND GF1 BOARDS REMOVAL



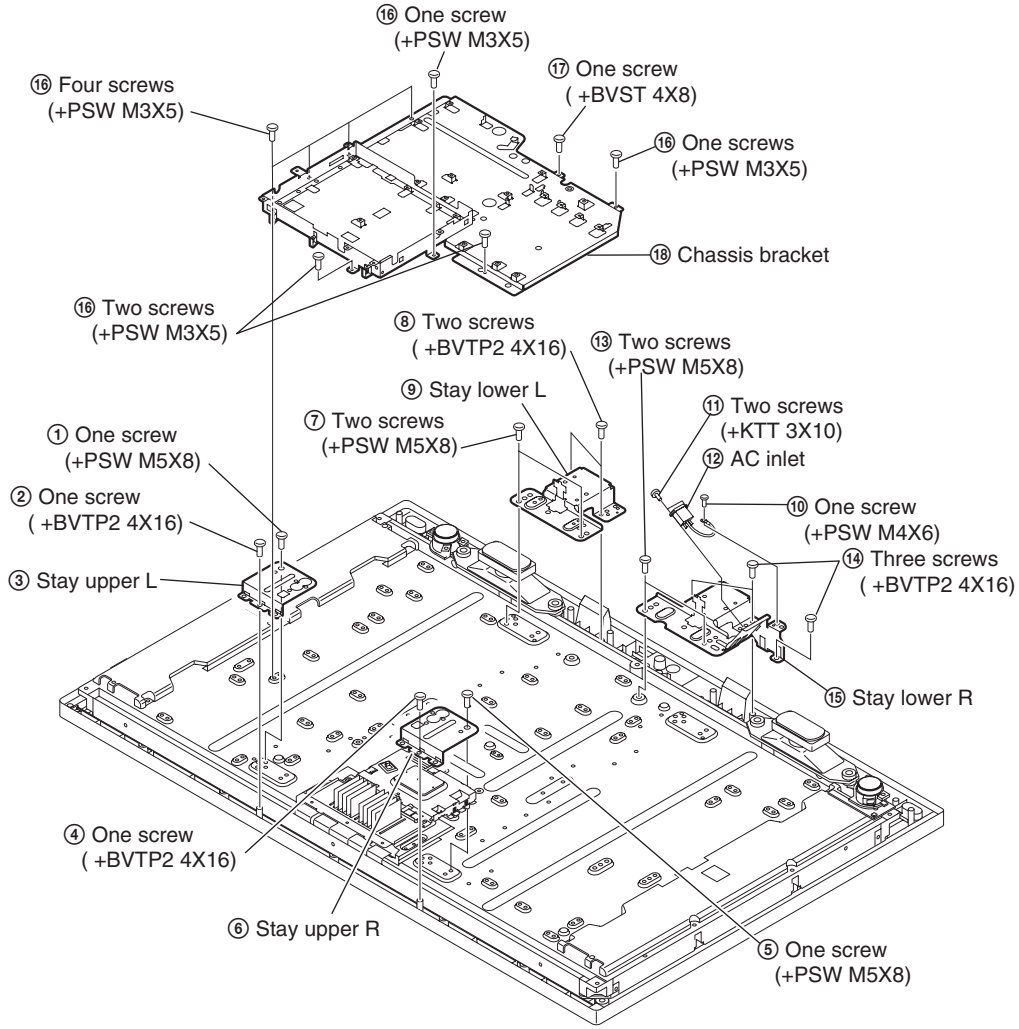

### 1-3-6. AG AND FB2 BOARDS REMOVAL



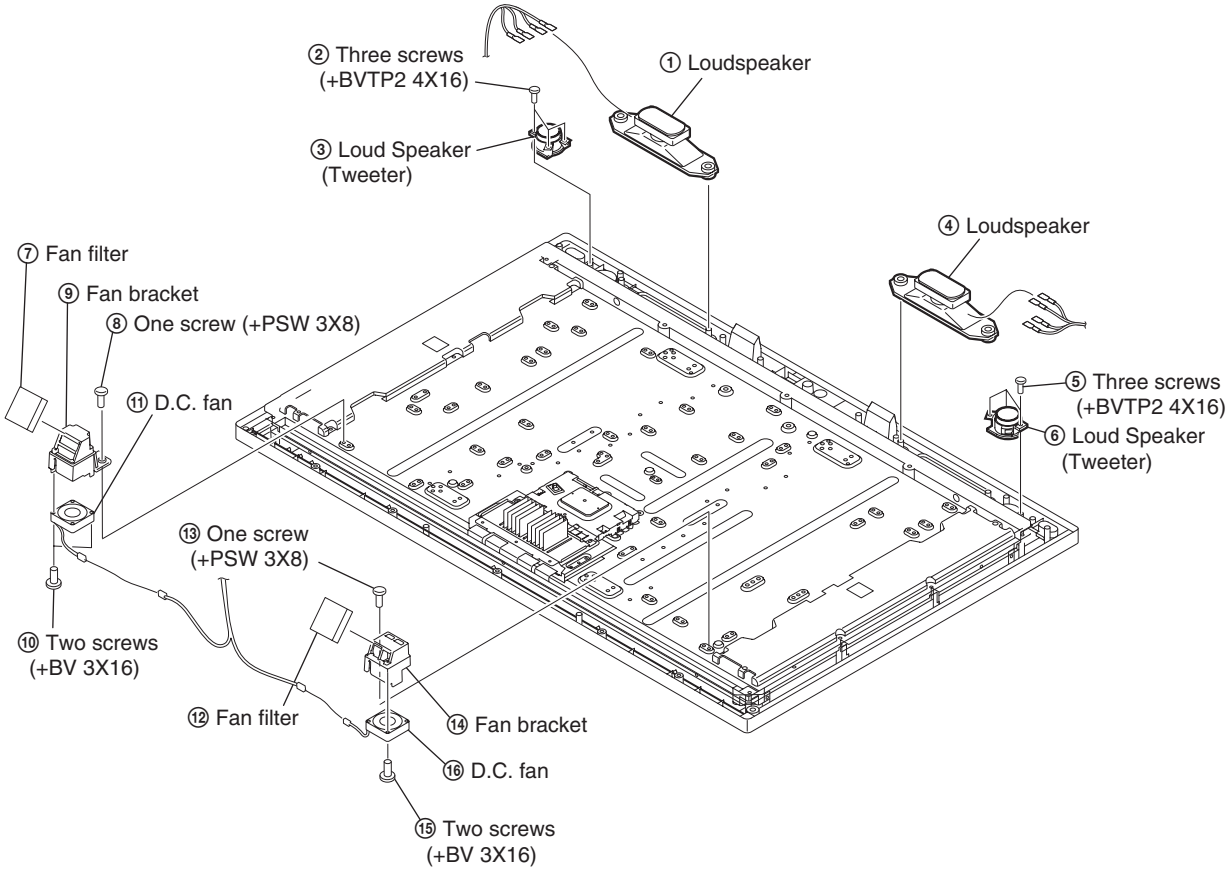
### 1-3-7. TUG BOARD REMOVAL



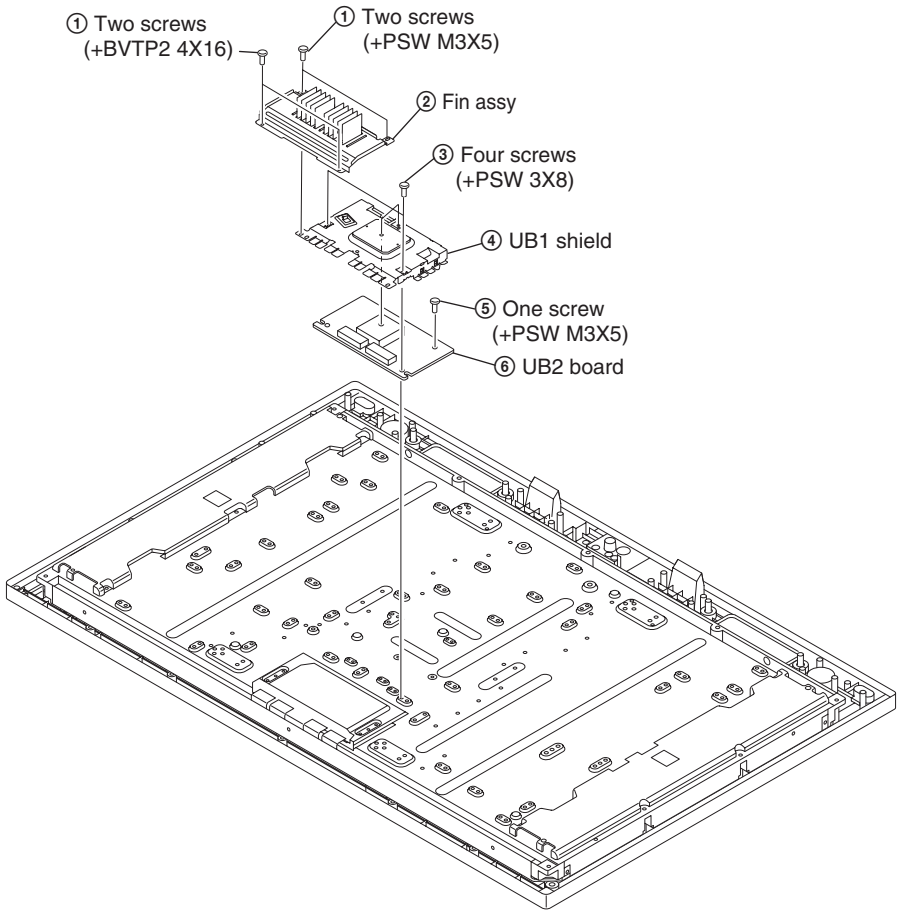

### 1-3-8. CHASSIS BRACKET AND STAY REMOVAL



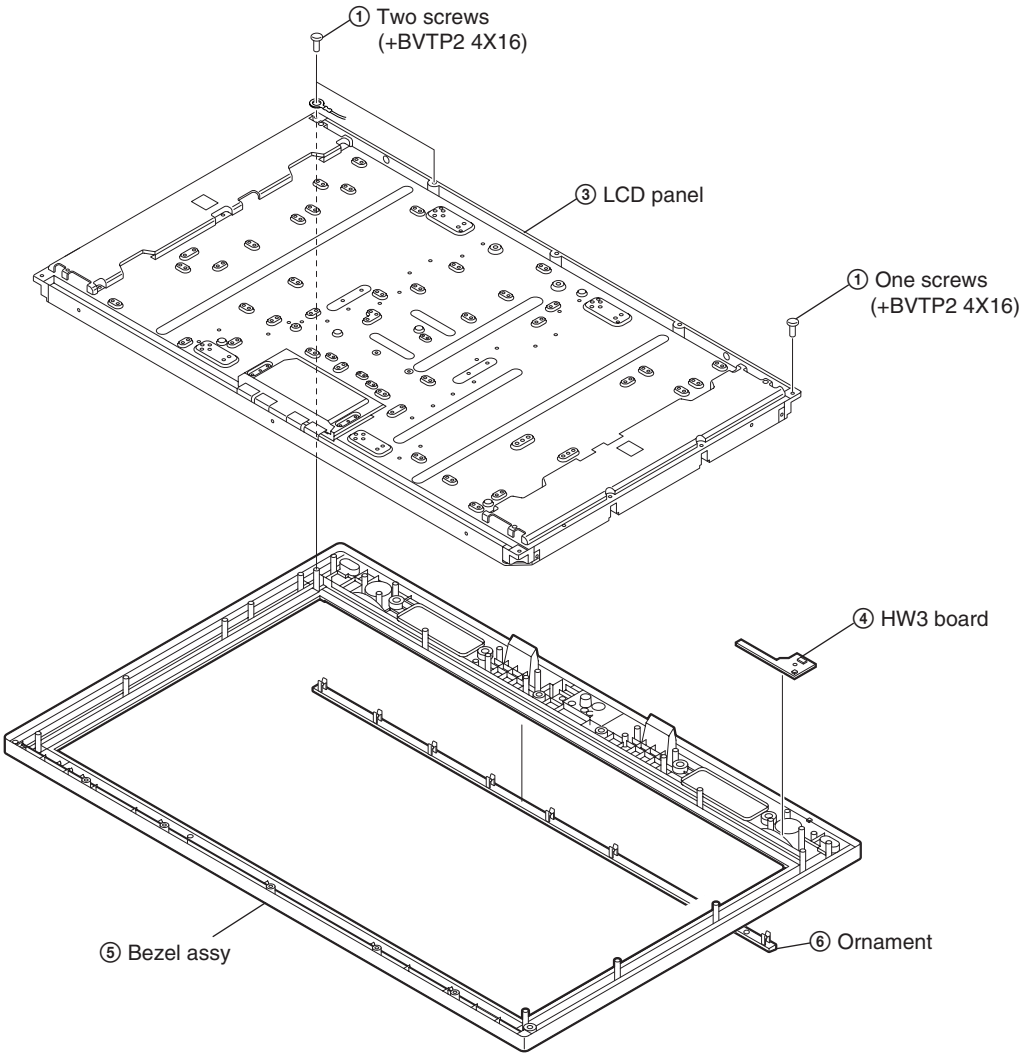
## 1-3-9. FAN AND SPEAKER REMOVAL




## 1-3-10. UB2 BOARD REMOVAL

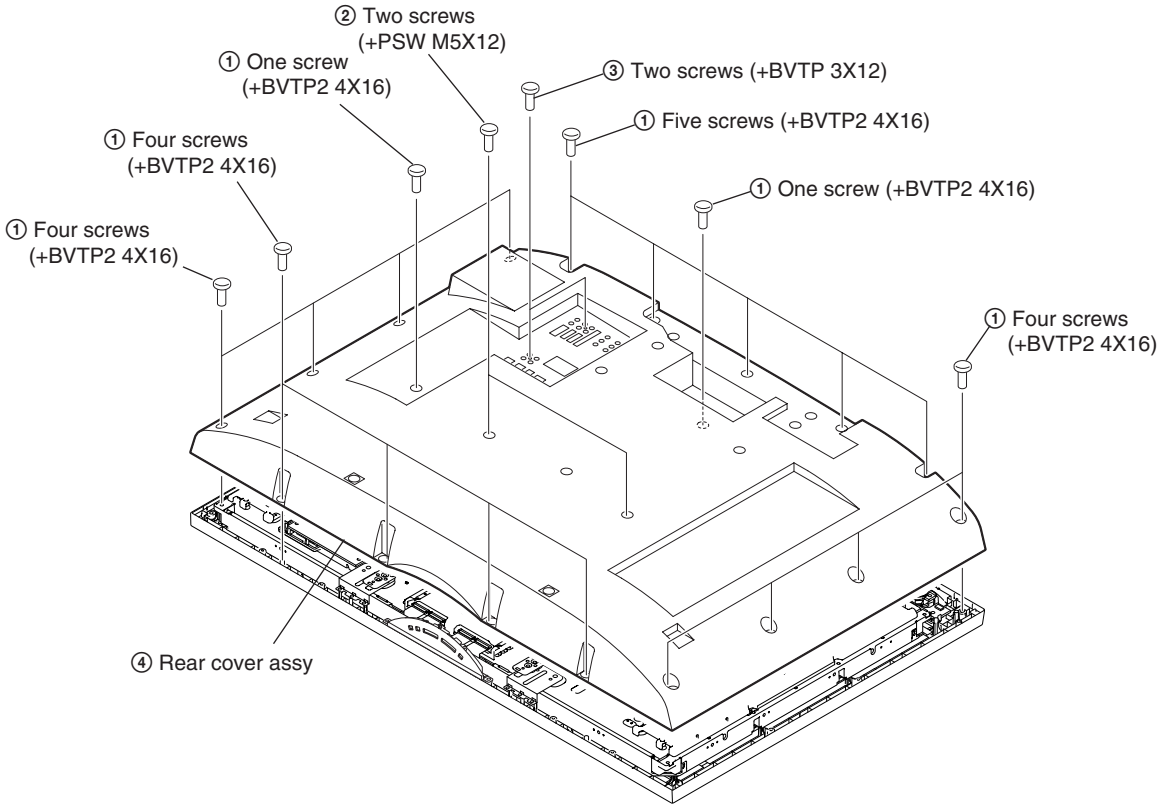


## 1-3-11. LCD PANEL AND HW3 BOARD REMOVAL

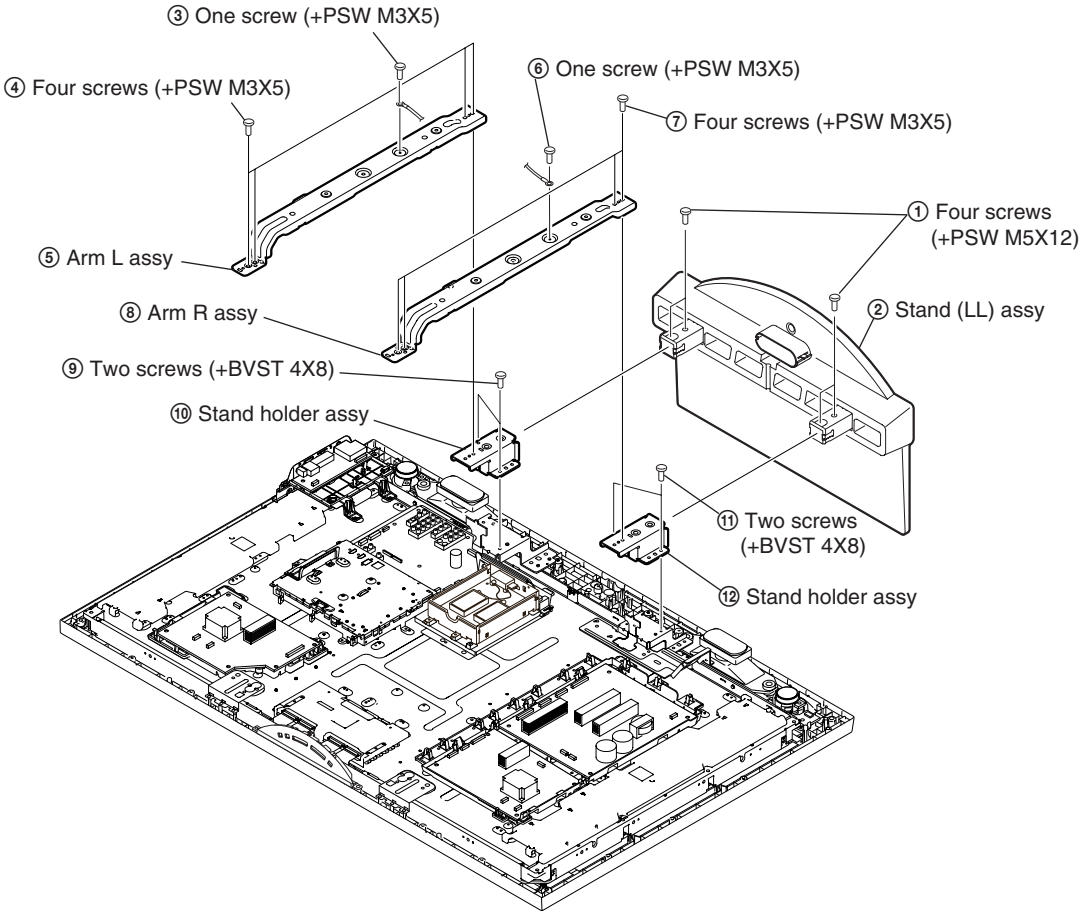


## 1-4. KLV-52W380A

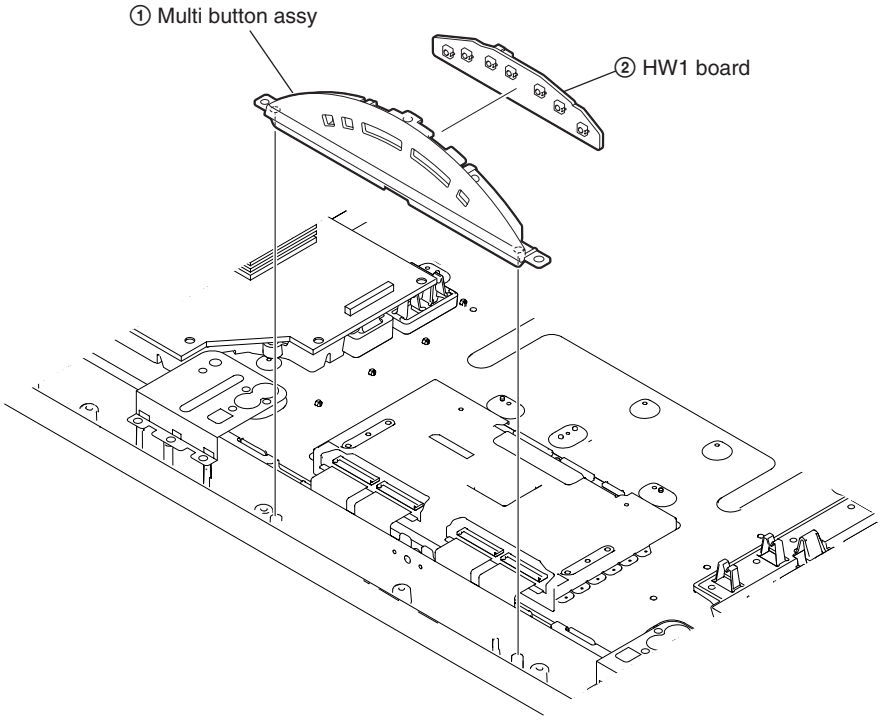
### 1-4-1. REAR COVER ASSY REMOVAL



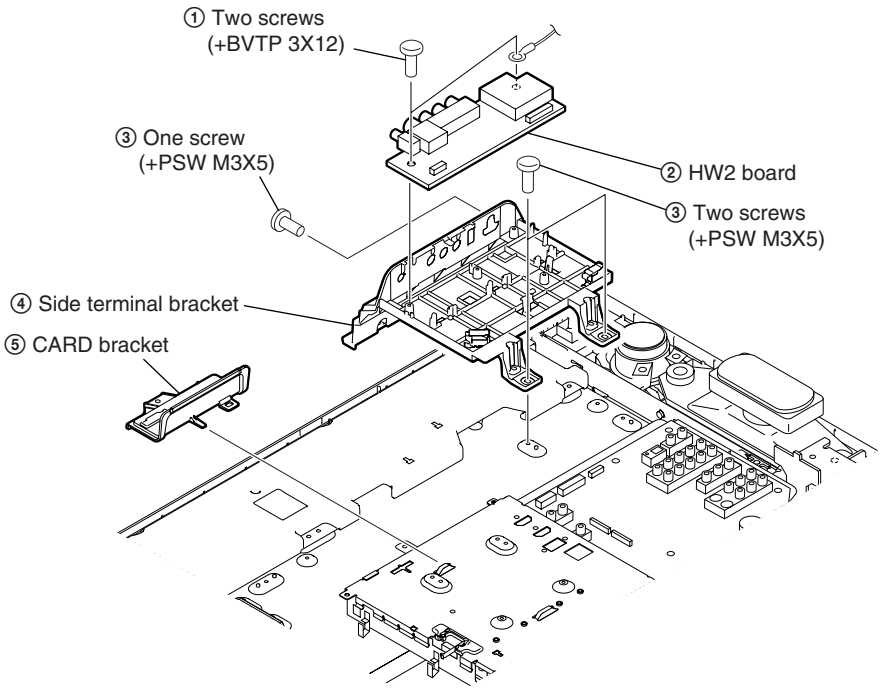

### 1-4-2. STAND ASSY AND ARM ASSY REMOVAL



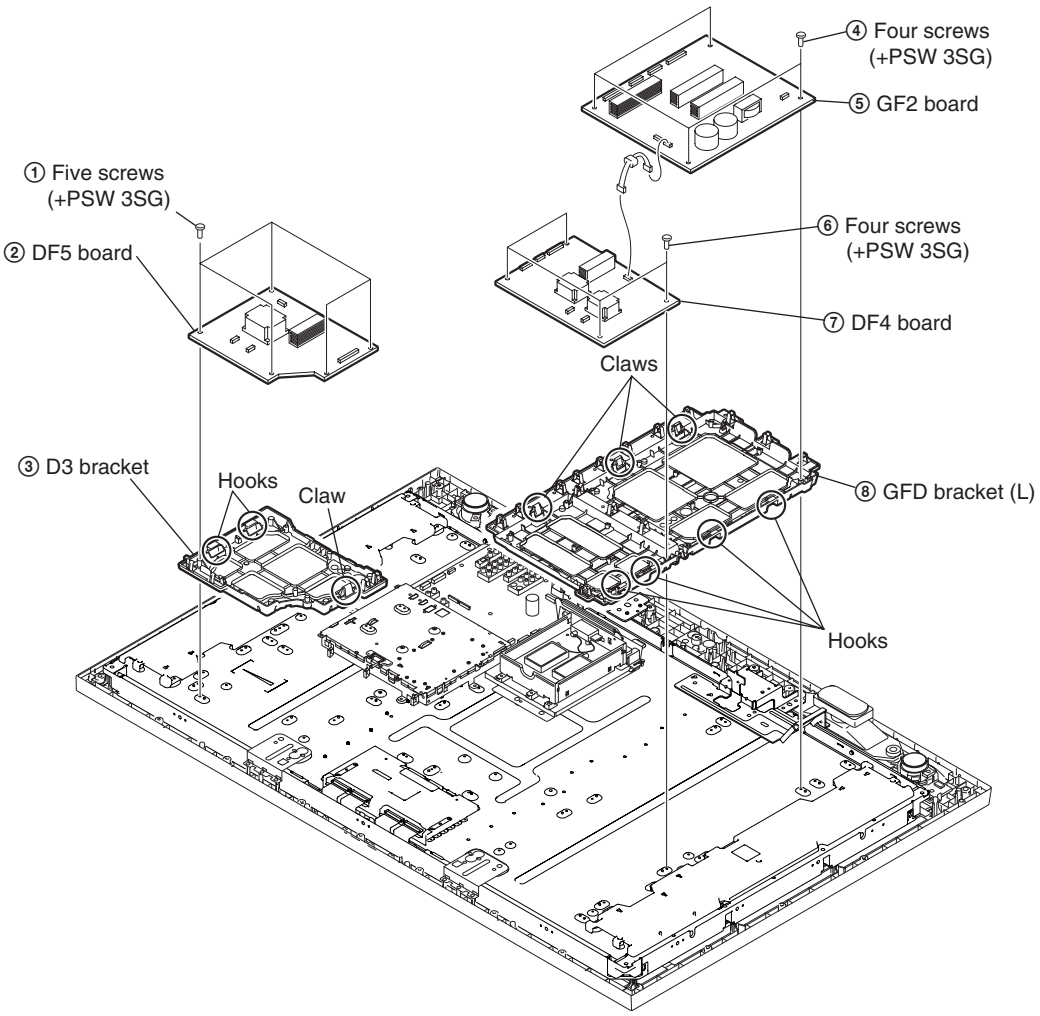
### 1-4-3. HW1 BOARD REMOVAL



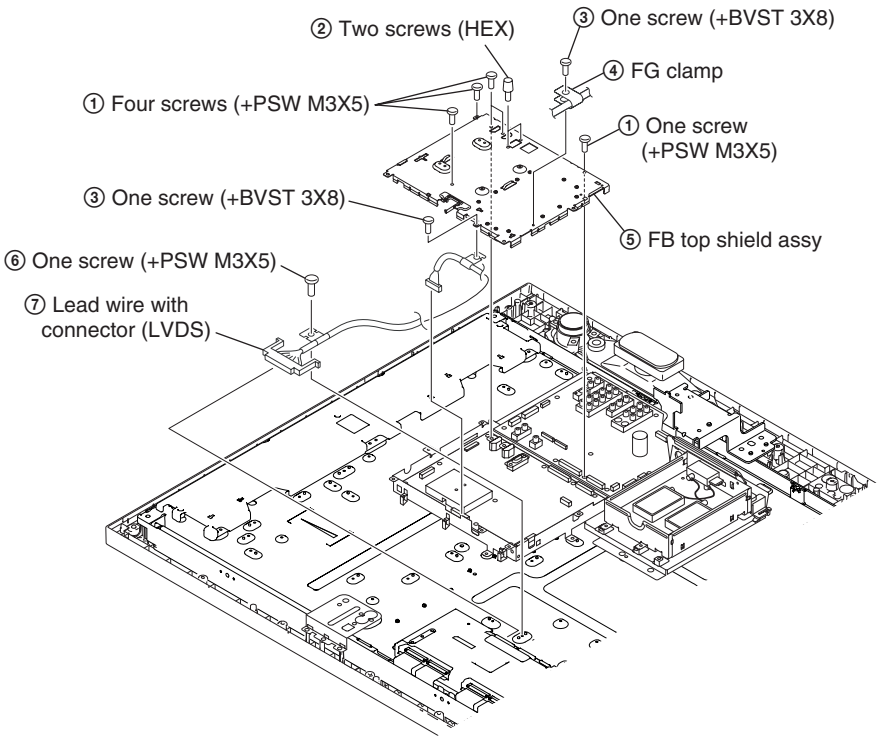

### 1-4-4. HW2 BOARD REMOVAL



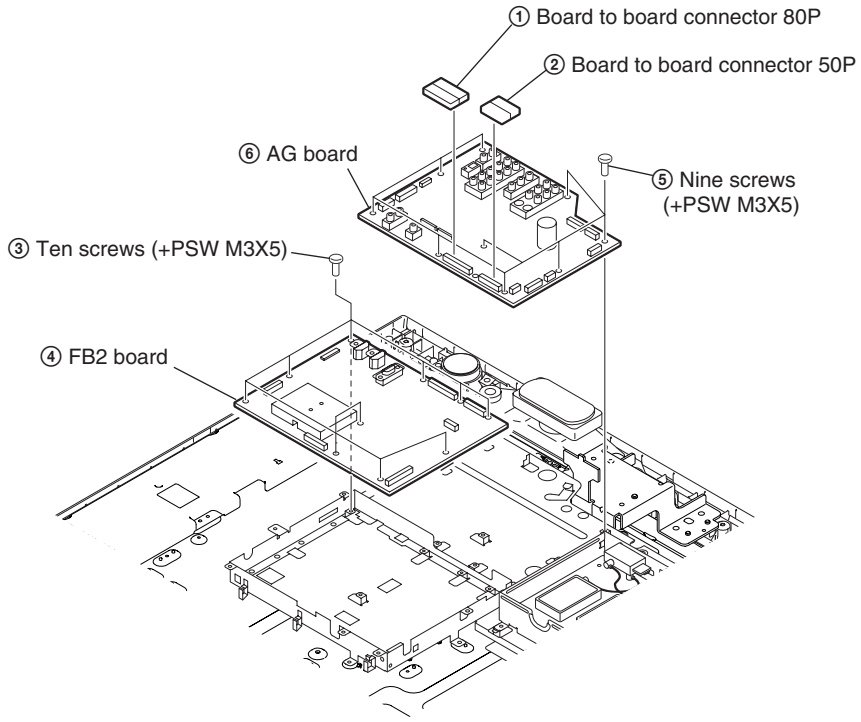
## 1-4-5. DF4, DF5 AND GF2 BOARDS REMOVAL



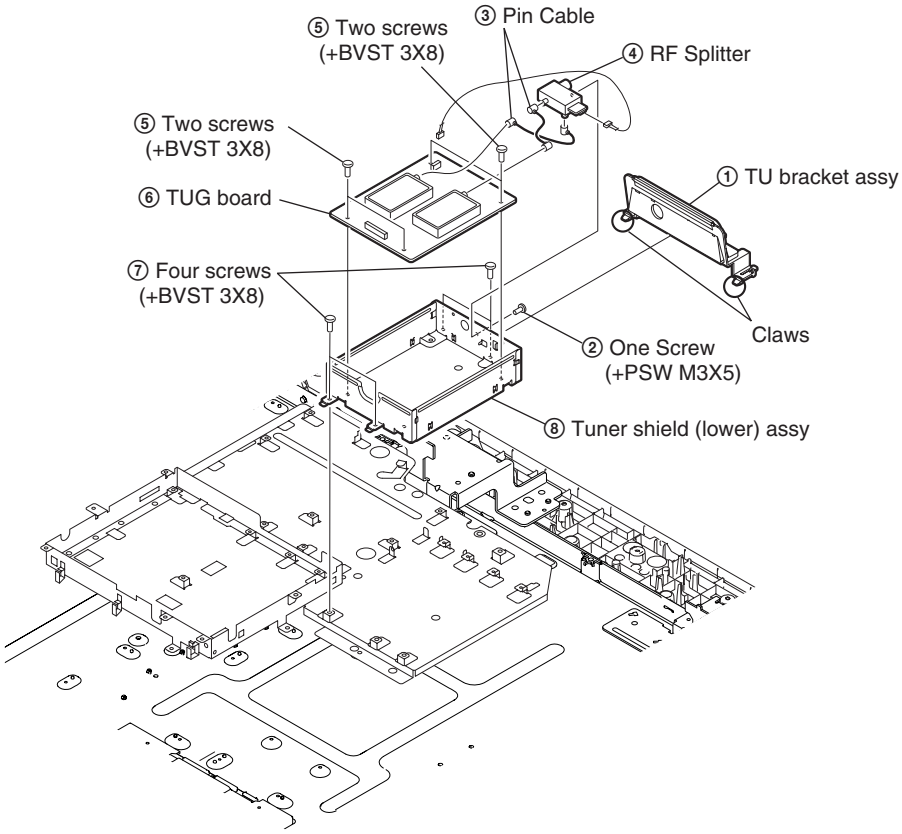

## 1-4-6. FB TOP SHIELD REMOVAL



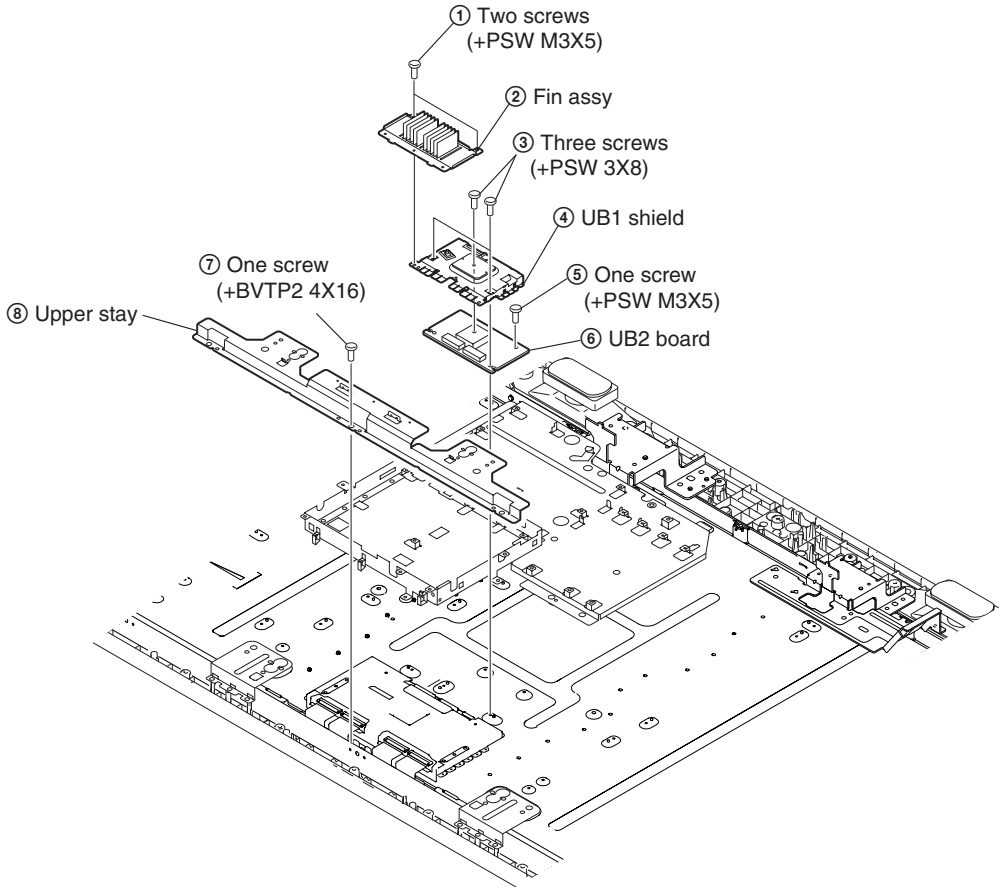
## 1-4-7. AG AND FB2 BOARDS REMOVAL


① Board to board connector 80P
② Board to board connector 50P
⑥ AG board
⑤ Nine screws (+PSW M3X5)
③ Ten screws (+PSW M3X5)
④ FB2 board

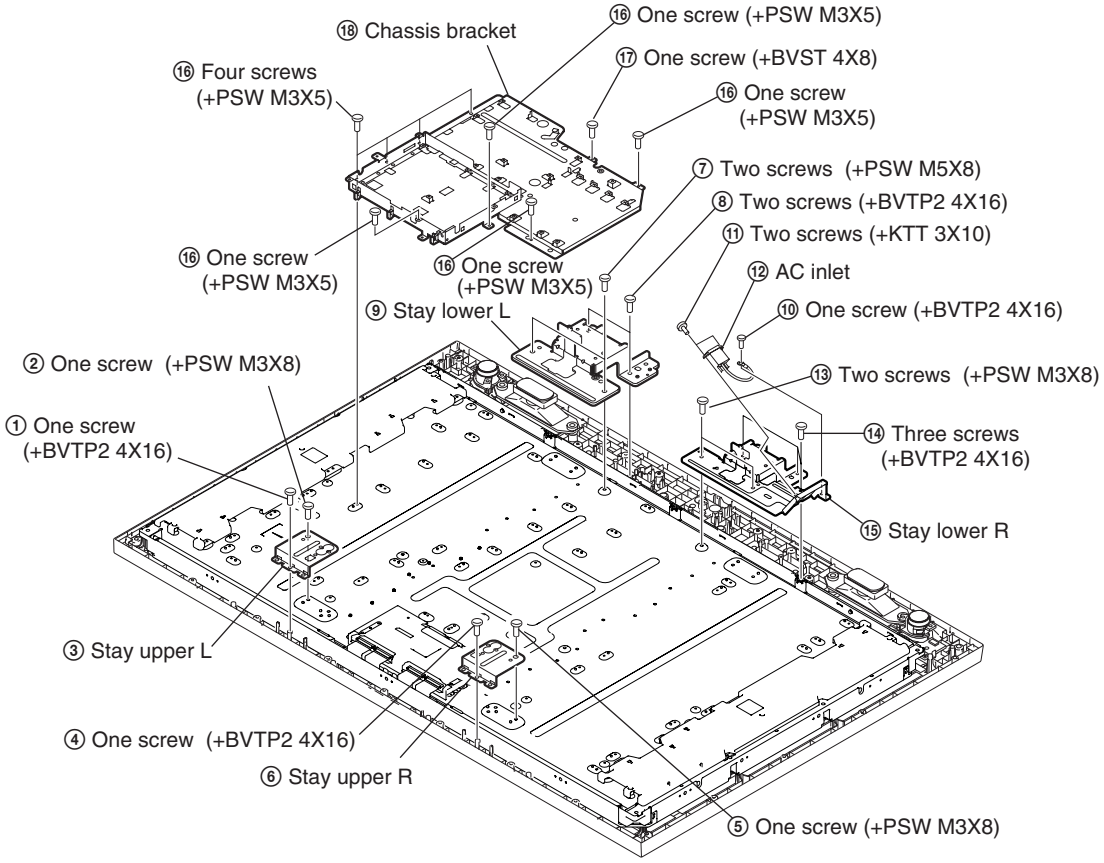
## 1-4-8. TUG BOARD REMOVAL



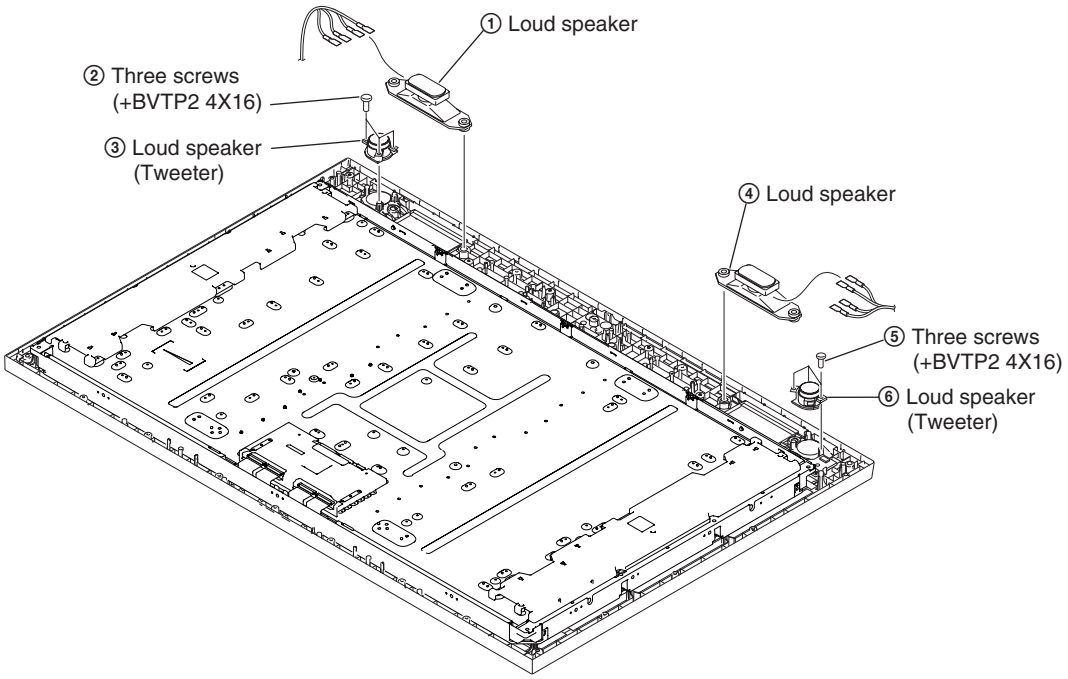
## 1-4-9. UB2 BOARD REMOVAL


① Two screws (+PSW M3X5)
② Fin assy
③ Three screws (+PSW 3X8)
④ UB1 shield
⑤ One screw (+PSW M3X5)
⑥ UB2 board
⑦ One screw (+BVTP2 4X16)
⑧ Upper stay

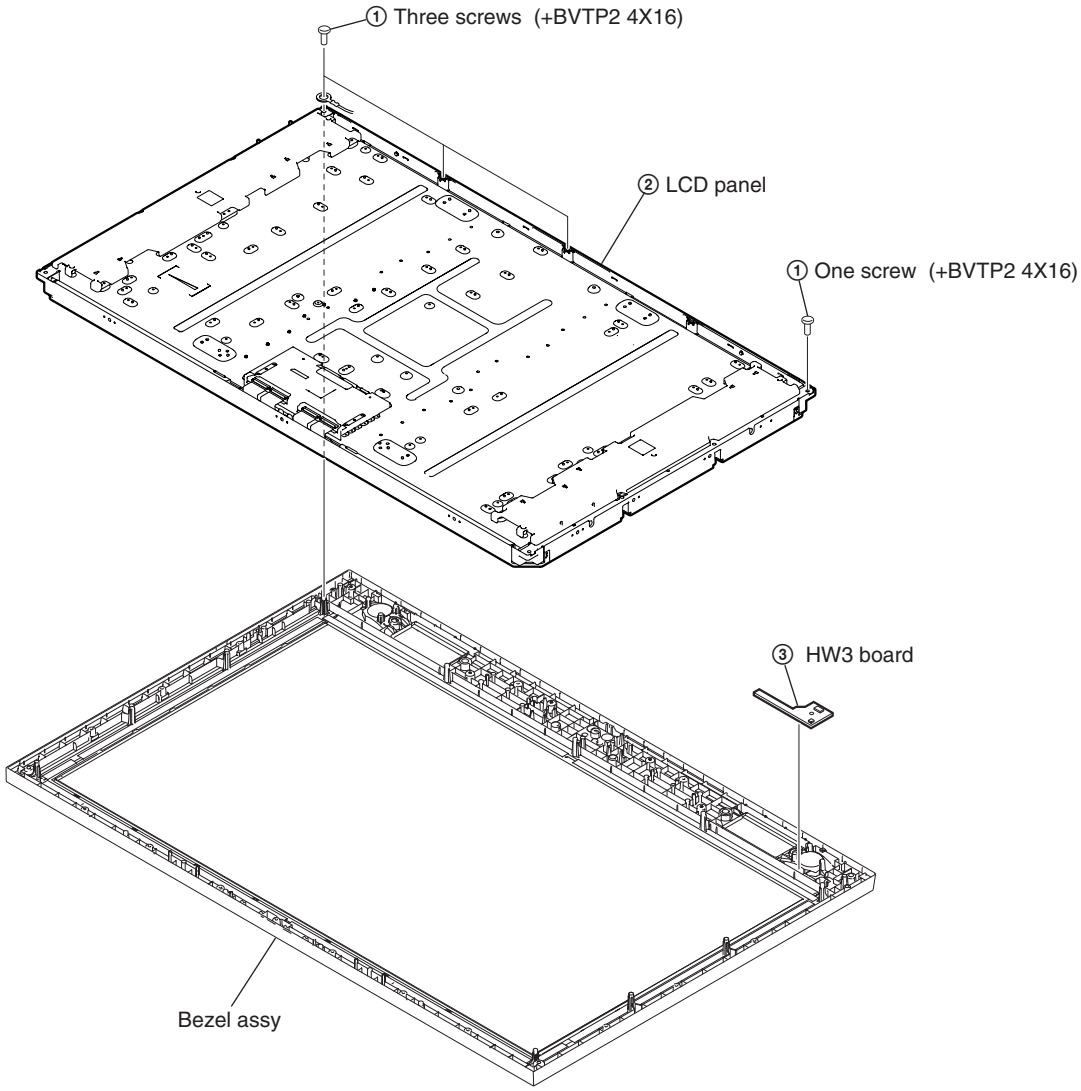
## 1-4-10. CHASSIS BRACKET AND STAY REMOVAL


⑱ Chassis bracket
⑯ One screw (+PSW M3X5)
⑰ One screw (+BVST 4X8)
⑯ Four screws (+PSW M3X5)
⑯ One screw (+PSW M3X5)
⑦ Two screws (+PSW M5X8)
⑧ Two screws (+BVTP2 4X16)
⑪ Two screws (+KTT 3X10)
⑫ AC inlet
⑯ One screw (+PSW M3X5)
⑯ One screw (+PSW M3X5)
⑨ Stay lower L
⑩ One screw (+BVTP2 4X16)
② One screw (+PSW M3X8)
⑬ Two screws (+PSW M3X8)
① One screw (+BVTP2 4X16)
⑭ Three screws (+BVTP2 4X16)
⑮ Stay lower R
③ Stay upper L
④ One screw (+BVTP2 4X16)
⑥ Stay upper R
⑤ One screw (+PSW M3X8)

## 1-4-11. SPEAKER REMOVAL




## 1-4-12. LCD PANEL AND HW3 BOARD REMOVAL

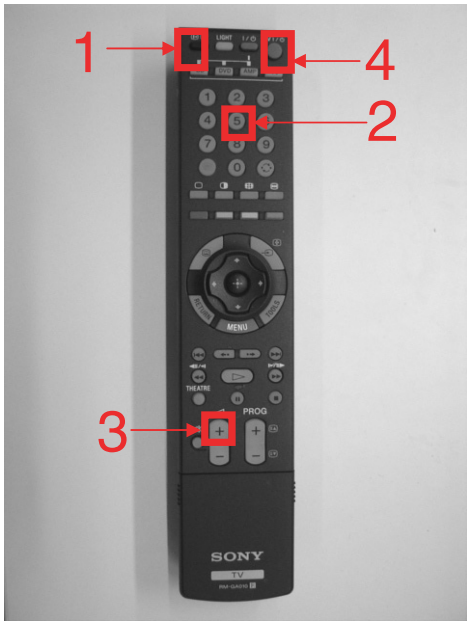


# How to go to service mode

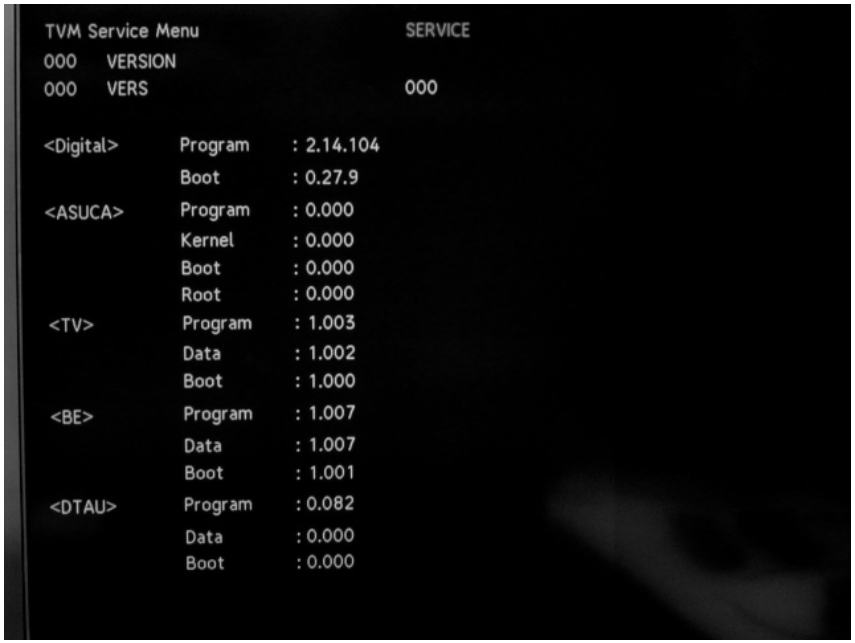
## 2-1. Go to TV standby condition.

## 2-2. Entering Service Mode

1. Push “i+ (info)”, “5”, “Volume+” then “TV button”with remote commander.
2. Service mode menu will appear on display.




Remote Commander



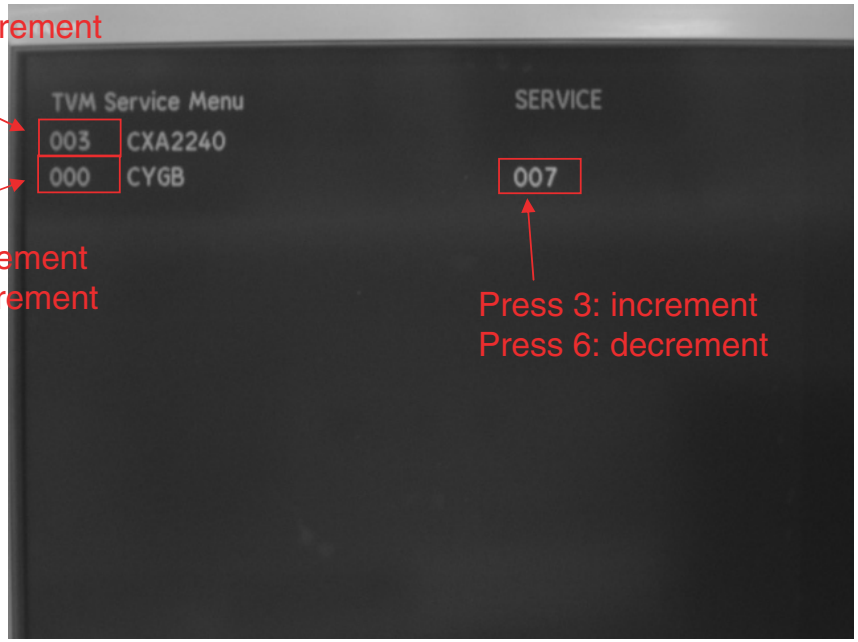

Service menu

# Change data by service mode

## 2-3. Change Setting Data for TV

1. Press “2 / 5”on remote commander to select (up / down) category.
2. Press “1 / 4”on remote commander to select (up / down) Item.
3. Press “3 / 6”on remote commander to change (up / down) data.

Remote Commander

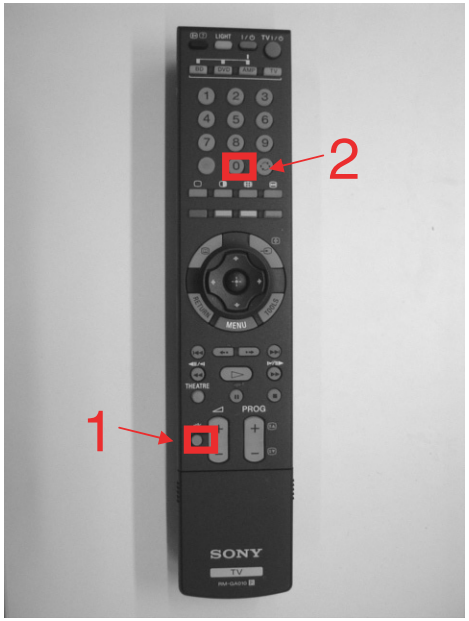



Service menu

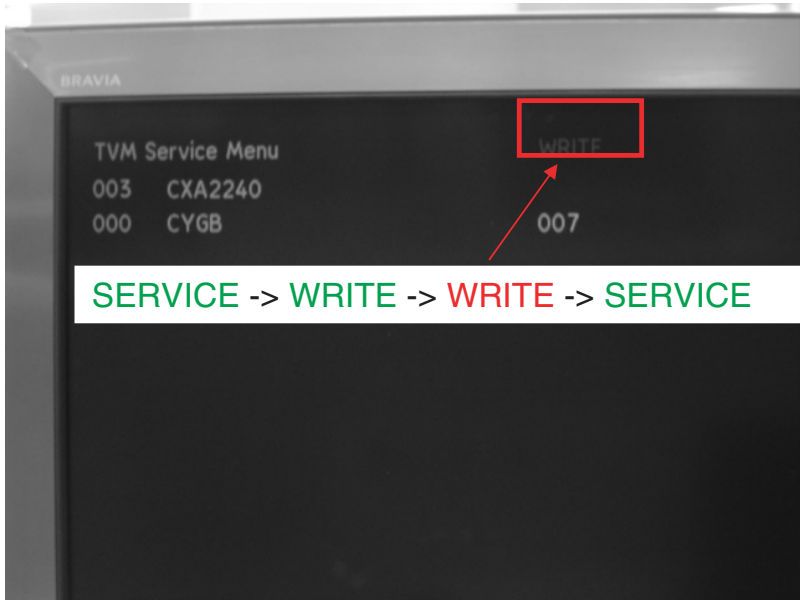
# Change data by service mode

## 2-4. Write data for TVM

1. Press “Mute” on remote commander. It shows green “SERVICE” changes to green “WRITE”.
2. Press “0” on remote commander. Green “WRITE” changes to red “WRITE”. It indicates writing processing.
3. After for 1 minute, red “WRITE” changes to green “SERVICE”. Writing process is done at this point.




Remote Commander




Service menu

# 2-5. Entering BEM service menu

1. Press “Previous channel” on remote commander.

Remote Commander

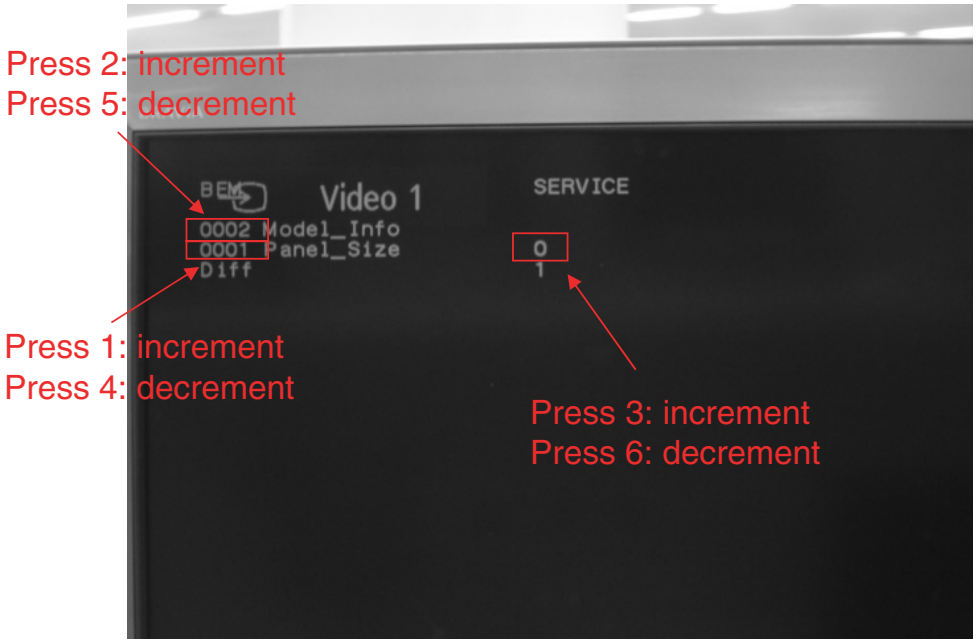
Service menu

# Change Setting data by service mode

## 2-6. Change Setting Data for BEM

1. Press “2/5” on remote commander to select (up / down) category.
2. Press “1/4” on remote commander to select (up / down) Item.
3. Press “3/6” on remote commander to change (up / down) data.

Remote Commander

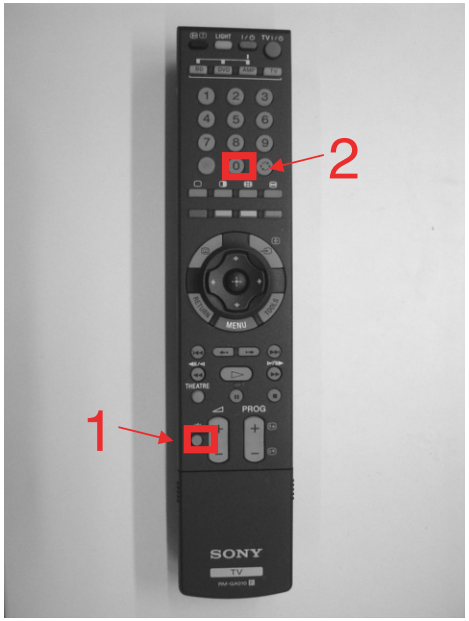



Service menu

# Change data by service mode

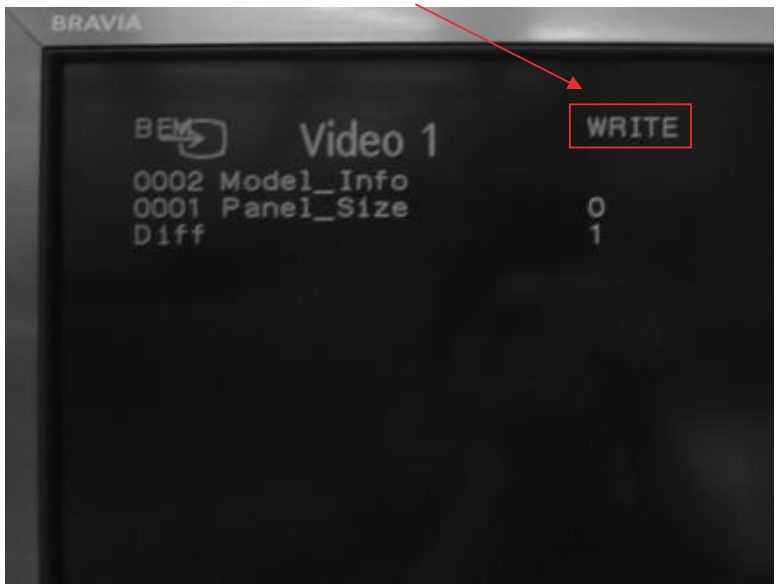
## 2-7. Write data for BEM

1. Press “Mute” on remote commander. It shows green “SERVICE” changes to green “WRITE”.
2. Press “0” on remote commander. Green “WRITE” changes to red “WRITE”. It indicates writing processing.
3. After for few second, red “WRITE” changes to green “SERVICE”. Writing process is done at this point.




Remote Commander

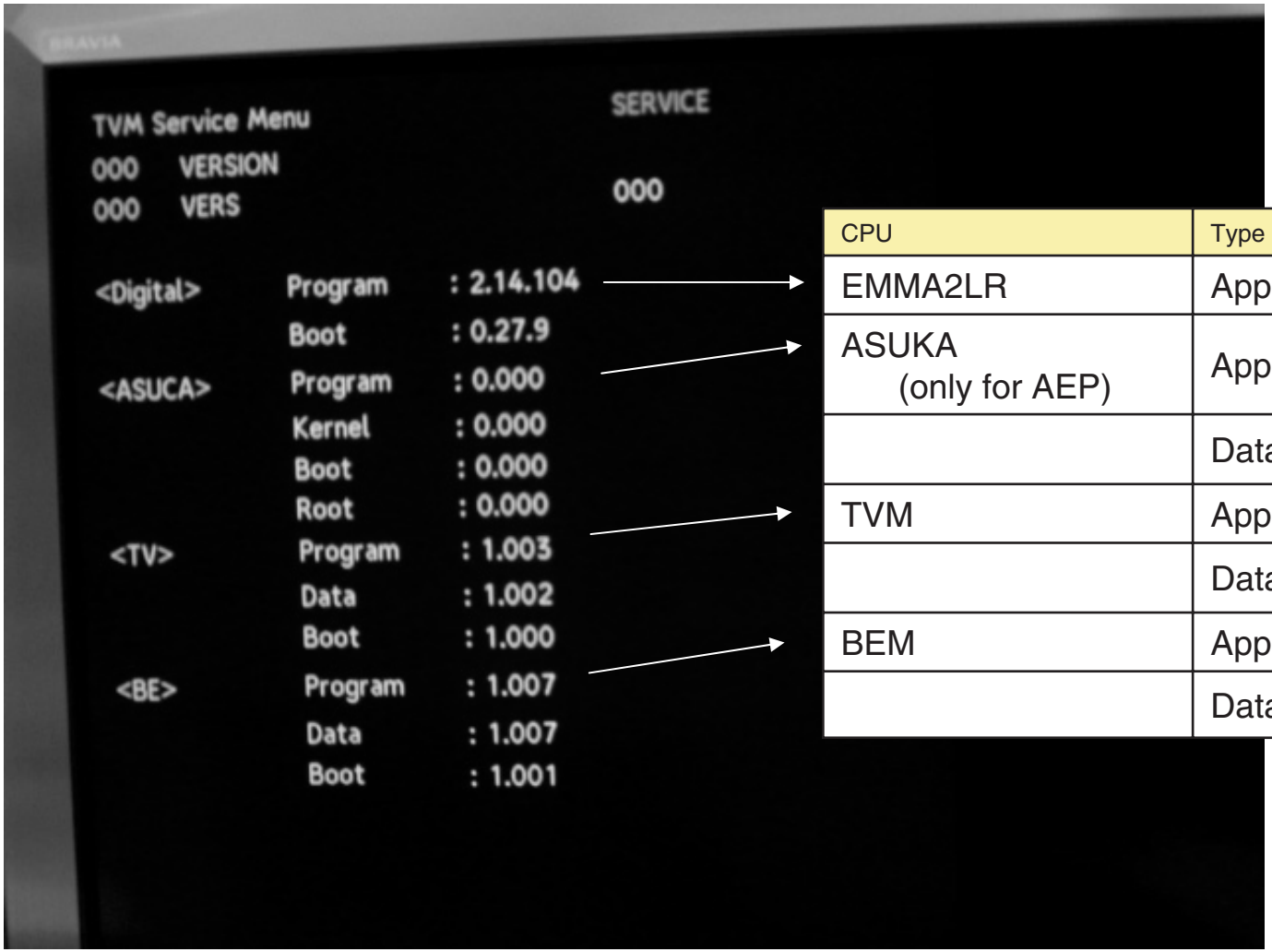
**SERVICE -> WRITE -> WRITE-> WRITE OK**




Service menu

# Soft ware version check

## 2-8. CH Model

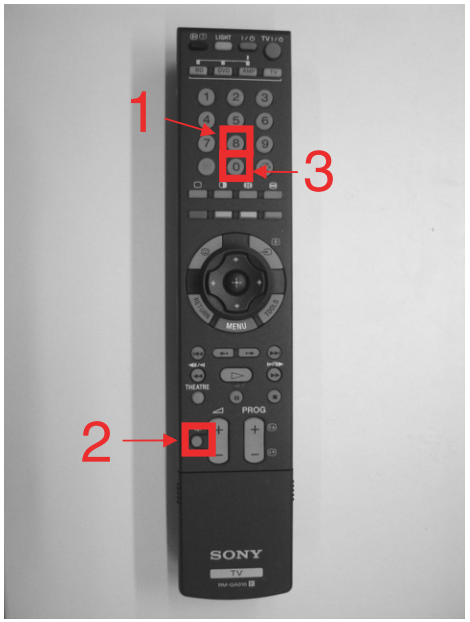



| CPU | Type |
|---|---|
| EMMA2LR | Application |
| ASUKA (only for AEP) | Application |
| | Data |
| TVM | Application |
| | Data |
| BEM | Application |
| | Data |

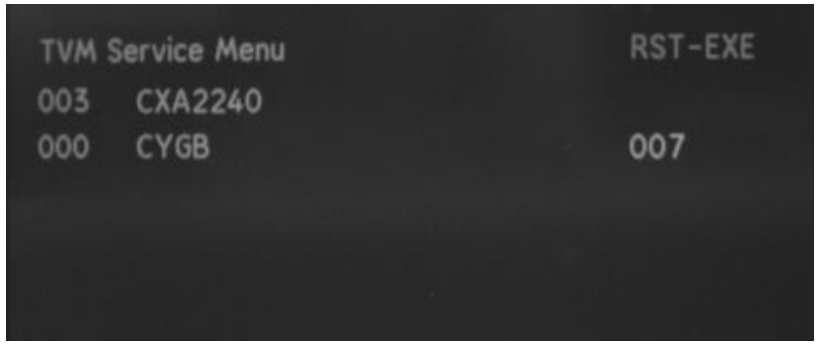
# Set to shipping condition

## 2-9. How to change shipping condition.

1. During service mode, press “8” on remote commander.
2. Press “mute” on remote commander.
3. Press “0” on remote commander.
4. Display change to “SERVICE” → “RST-” → “RST-EXE” → “RST-EXE”

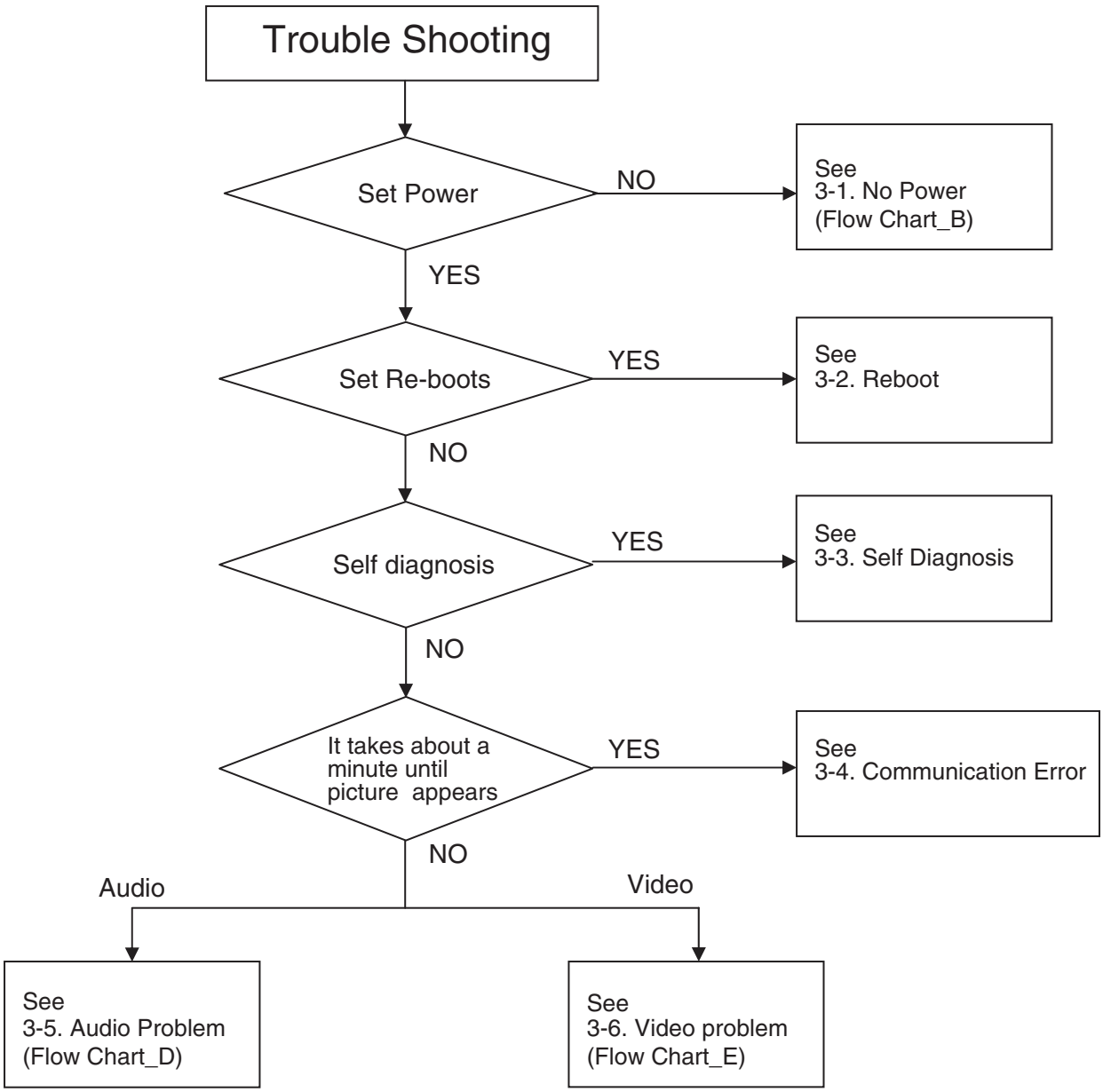


Remote Commander

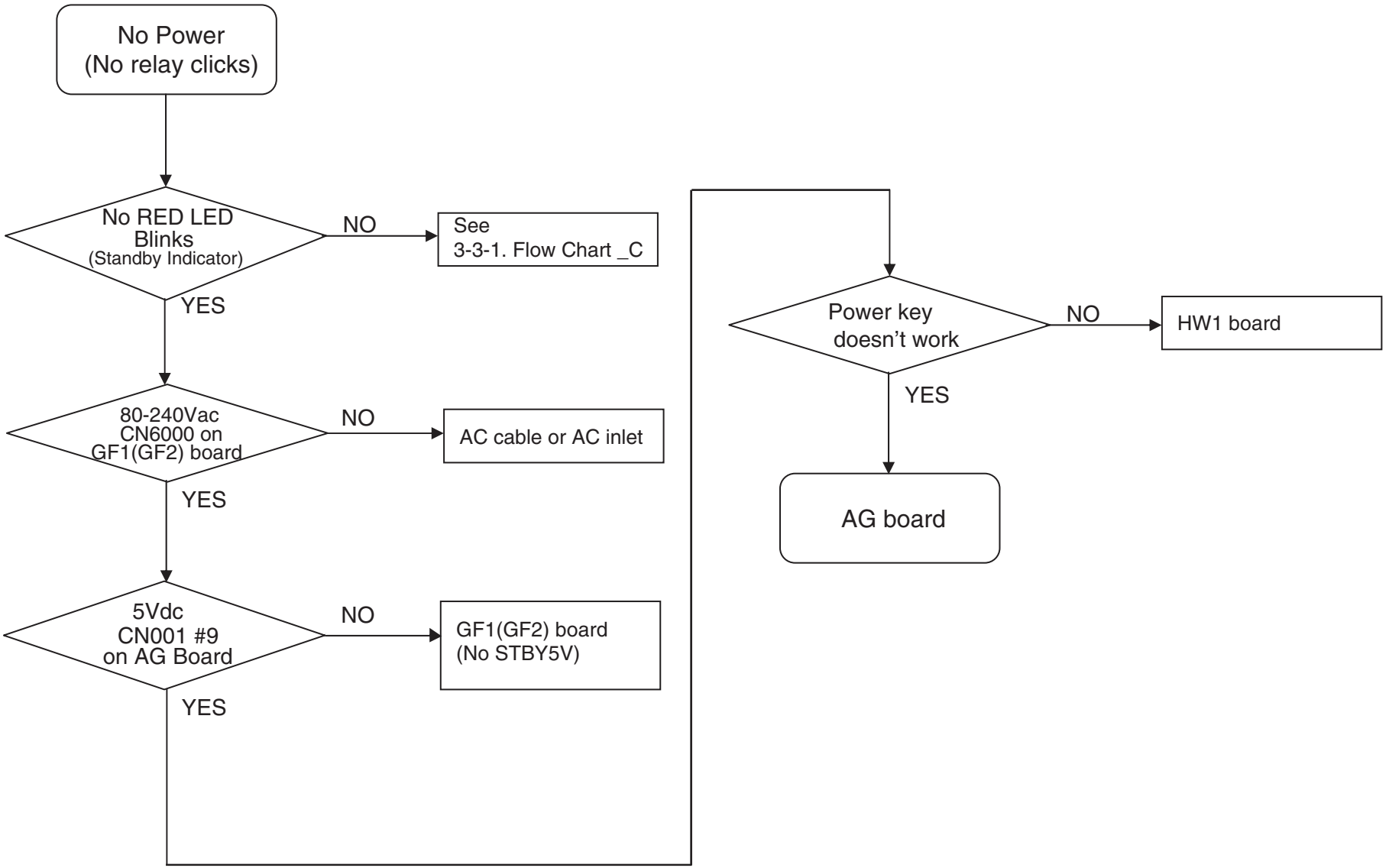



The error history will be reset.

# SECTION 3
# TROUBLE SHOOTING



# 3-1. No Power (Flow Chart_B)



## 3-2. Set Reboots

TV micro (on AG board) is monitoring BE Micro (on FB2 board) are alive or not like watch dog timer. When BEM has not boot up, TVM try to re-start. We can see chassis reboot at this case. Check FB2 board has correct power or not.

- FB2 board
  - CN 5600 12V, 6.5V power and harness to GF1(GF2) Board.
  - F4100, F4102, F5200 conduction.

If power rail has no problem, replace FB2 board.

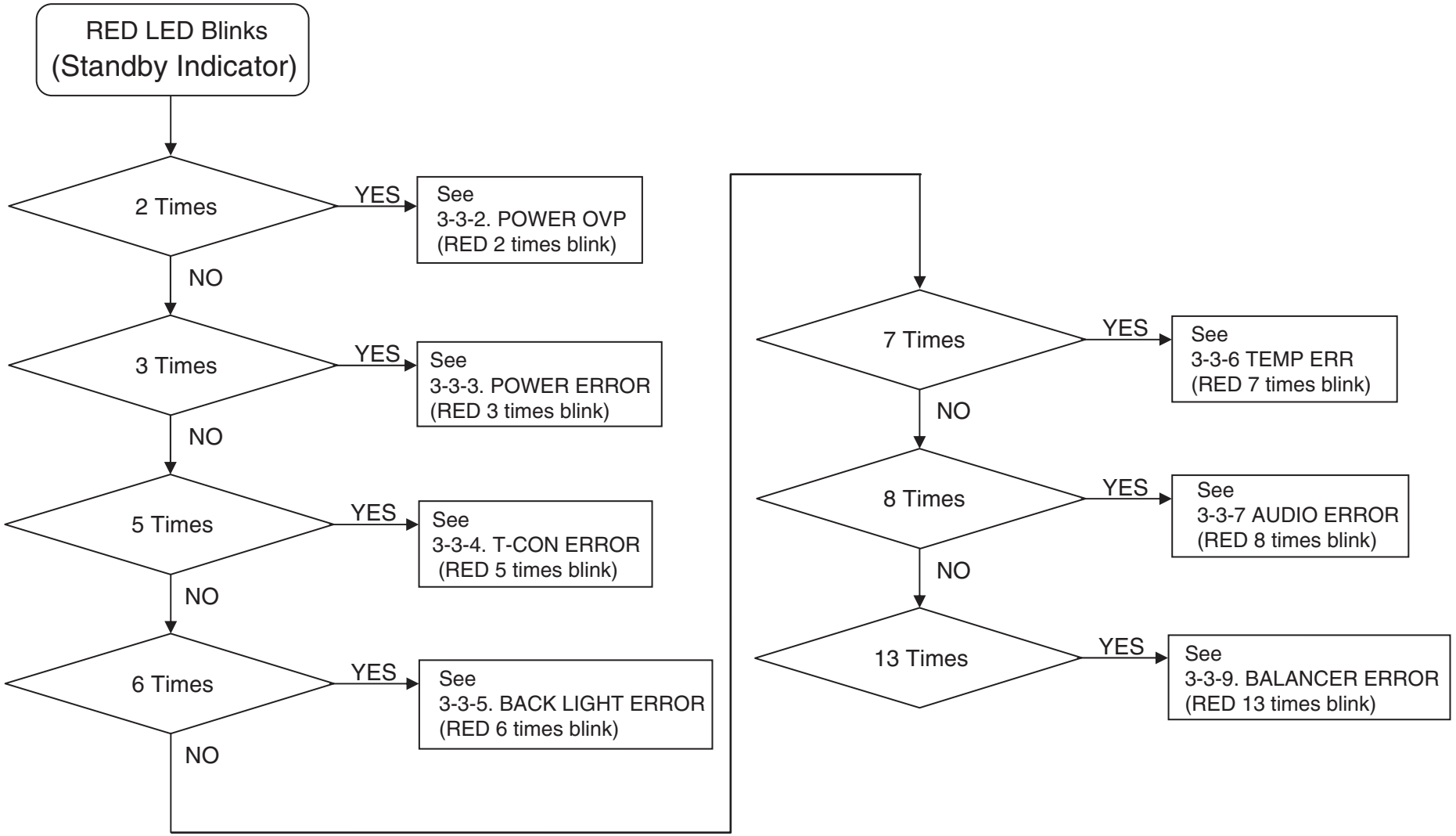
## 3-3. SELF DIAGNOSIS

| Red LED Blink | Display (Self Diagnosis mode) | Contents |
|---|---|---|
| 2 | POW OVP | Main Power Over Voltage Protection |
| 3 | POW ERR1 | Power Error |
| 5 | T_CON | T-CON Error |
| 6 | BACKLITE | Back Light Error (Panel Inverter) |
| 7 | TEMP ERR | Temperature Abnormal Detection |
| 8 | AUD PROT | Audio Abnormal Detection |
| 9 | FAN_ERR | FAN Error (Not Detected. Display Only) |
| 13 | BALANCER | Panel Balancer Error |

When self diagnosis happens, STANDBY (RED) LED blinks and

the history can be seen on display by self diagnosis mode.

# 3-3-1. Flow Chart_C



### 3-3-2. POWER OVP (RED 2 Times blink)

This indicates OVP (Over Voltage Protection) of GF1(GF2) board.

12V line or 6.5Vline on GF1(GF2) board is over-voltage.

TV Micro (on AG board) pin139 detects OVP ERR and shuts down chassis power to Stand-by status.

TV Micro #139 Normal condition : Low / Error case : High

Replace GF1(GF2) board.

### 3-3-3. POWER ERROR (RED 3 Times blink)

This indicates POWER Error, Low B error of 12V from GF1(GF2) board. TV Micro (on AG board) pin150 detects POWER_ERR and shuts down chassis power to Stand-by status.

TV Micro #150 Normal condition : High / Error case : Low

- Check 12V at CN002 #1#2 on AG board. And F200 on AG has 12V or not
- Check GF1(GF2) board.

### 3-3-4. T-CON ERROR (RED 5 Times blink)

This indicates T-CON RDY signal error from timing controller of Panel module.

BE micro pin 128 on FB2 board detects it.

BE Micro #128 Normal condition : High / Error case : Low

Replace Panel module.

### 3-3-5. BACK LIGHT ERROR (RED 6 Times blink)

This indicates panel power circuit error such as inverter.
BE micro pin 78 on FB2 board detects it.

BE Micro #78 Normal condition : High / Error case : Low

Replace DF boards.

## 3-3-6. TEMP ERROR (RED 7 Times blink)

This indicates high temperature inside chassis. IC001 on AG Board Side is monitoring temperature. IC001 is controlled by BEM I2C.

When it happens;

- Check chassis environment

- Check around IC001 and replace AG if temperature monitoring circuit has problem

- Check panel

## 3-3-7. AUDIO ERROR (RED 8 Times blink)

This indicates Audio Error (Protection). It happens;

- IC8806 on AG board, Audio Amp detects over current, thermal shut down and/or low voltage of itself.

- DC voltage detected for speaker line.

Check above and replace AG board

## 3-3-8. BALANCER ERROR (RED 13 Times blink)

This indicates Balancer board error of panel module.
BE micro pin 113 on FB2 board detects it.

BE Micro #113 Normal condition : Low / Error case : High

40” : Check harness connection CN6701 on DF1 board and CN126 on balancer board of panel module.

46” : Check harness connection CN6701 on DF2 board and CN138 on balancer board of panel module.

52” : Check harness connection CN6701 on DF4 board and CN324 on balancer board of panel module.

Replace Panel Module.

## 3-4. COMMUNICATION ERROR

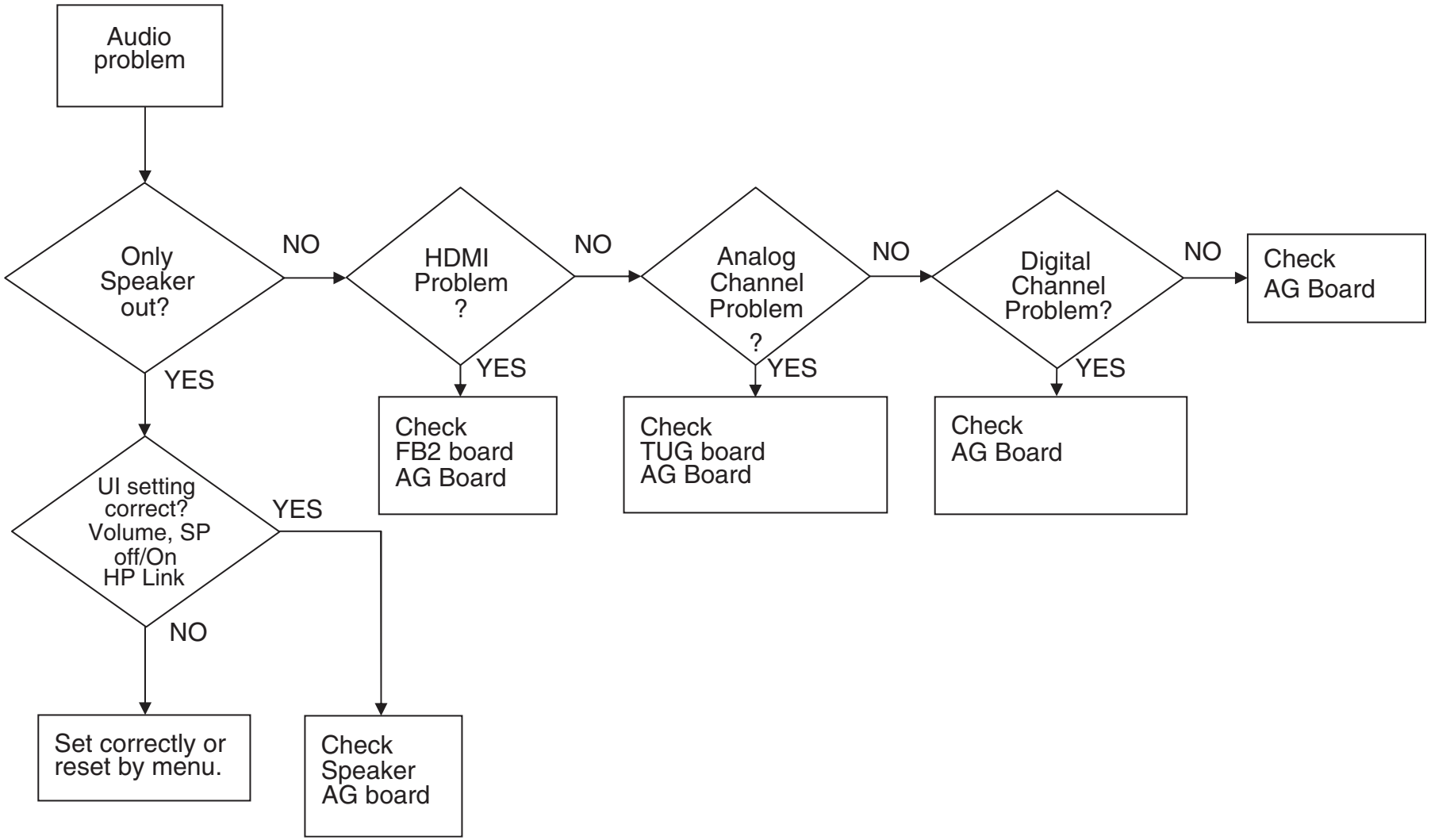
TV micro (on AG board) is communicating with EMMA2Lr (on FB2 board)

If EMMA has any problems, TVM retries to communicate and waits the response of EMMA. It will be timeout in about one minute, and TVM start power-up sequence w/o communicating with EMMA. Then, picture appears, but No OSD.

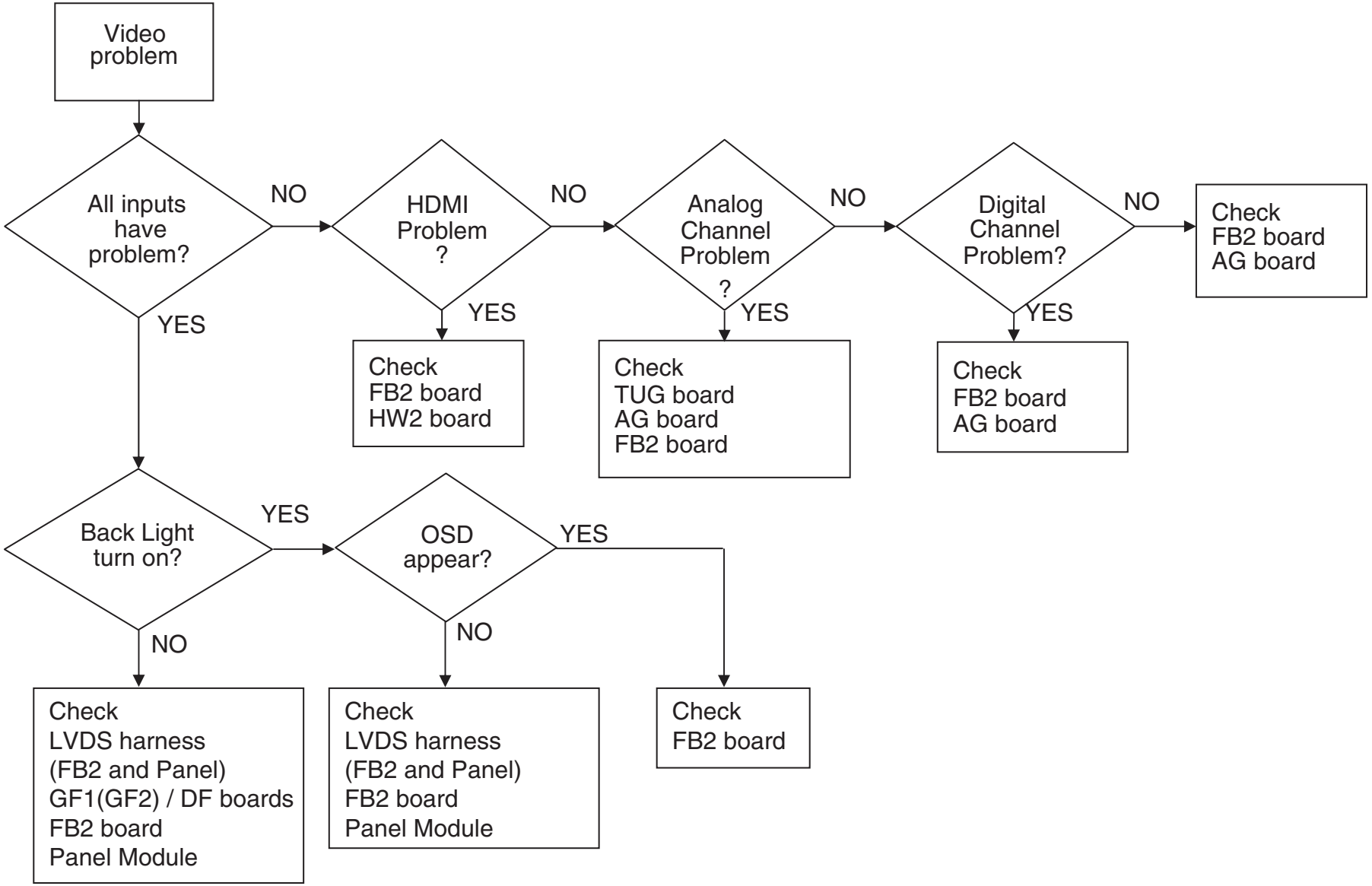
- FB2 board
  - PS3900, conduction.
- EMMA software upgrade error
  - Rewrite software of EMMA.

If it still NG, replace FB2 board.

# 3-5. AUDIO PROBLEM (Flow Chart_D)



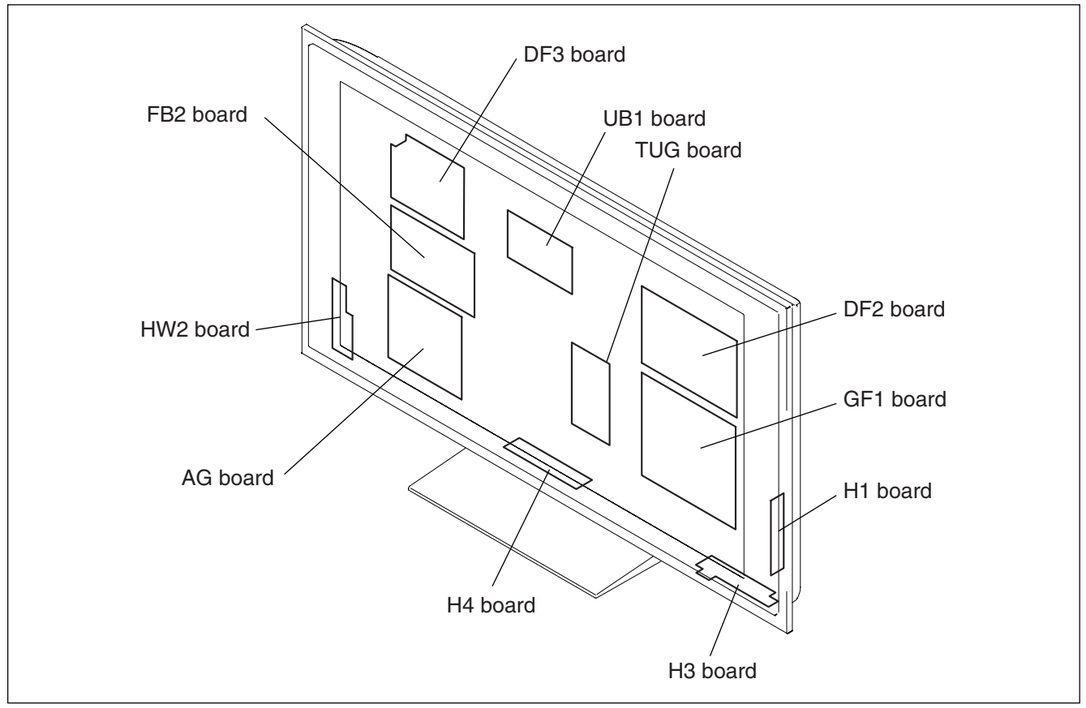
# 3-6. VIDEO PROBLEM (Flow Chart_E)



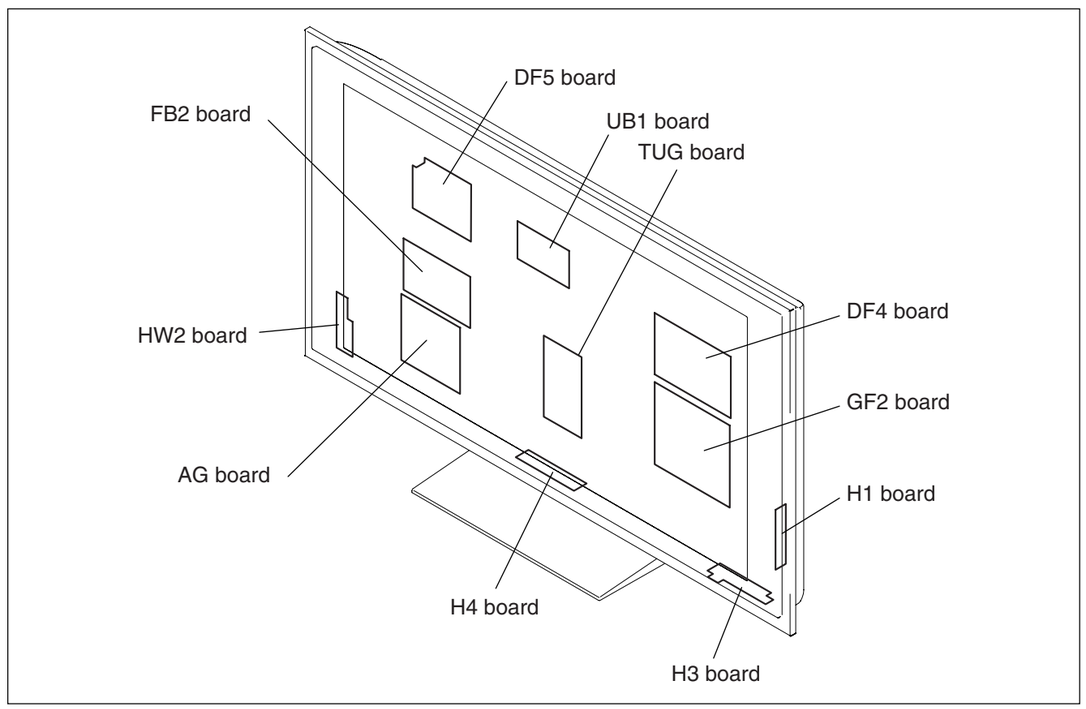
# SECTION 4
# DIAGRAMS

## 4-1. CIRCUIT BOARDS LOCATION

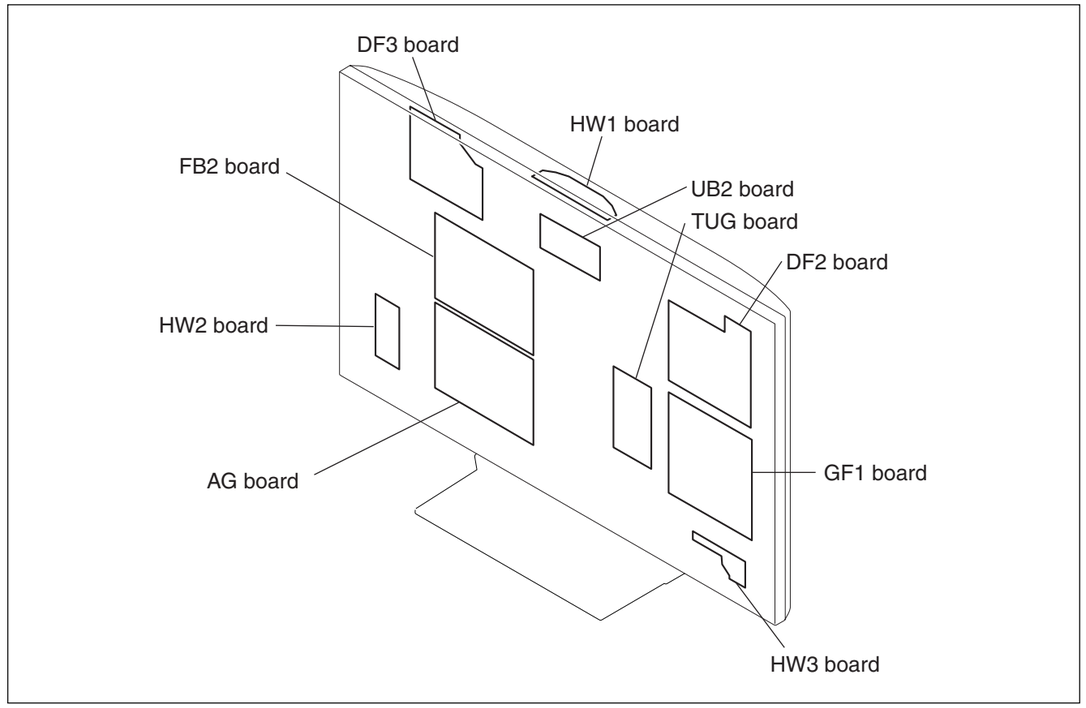
(1) KLV-46X300A



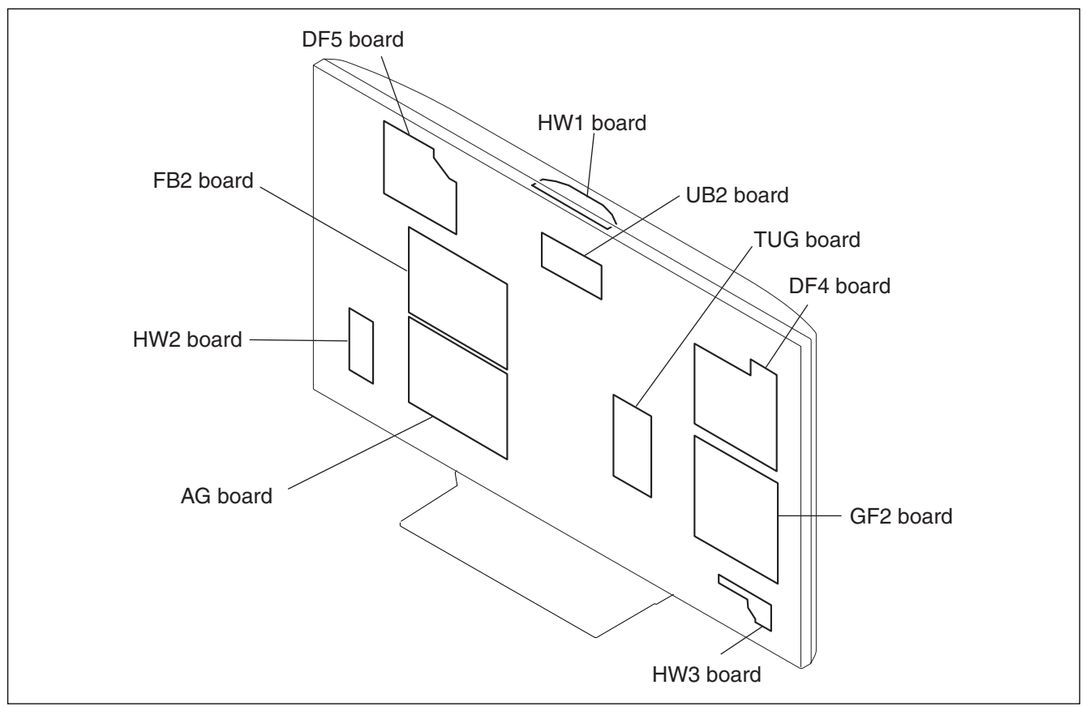

(2) KLV-52X300A




(3) KLV-46W380A




(4) KLV-52W380A



# SECTION 5
# EXPLODED VIEWS

NOTE:

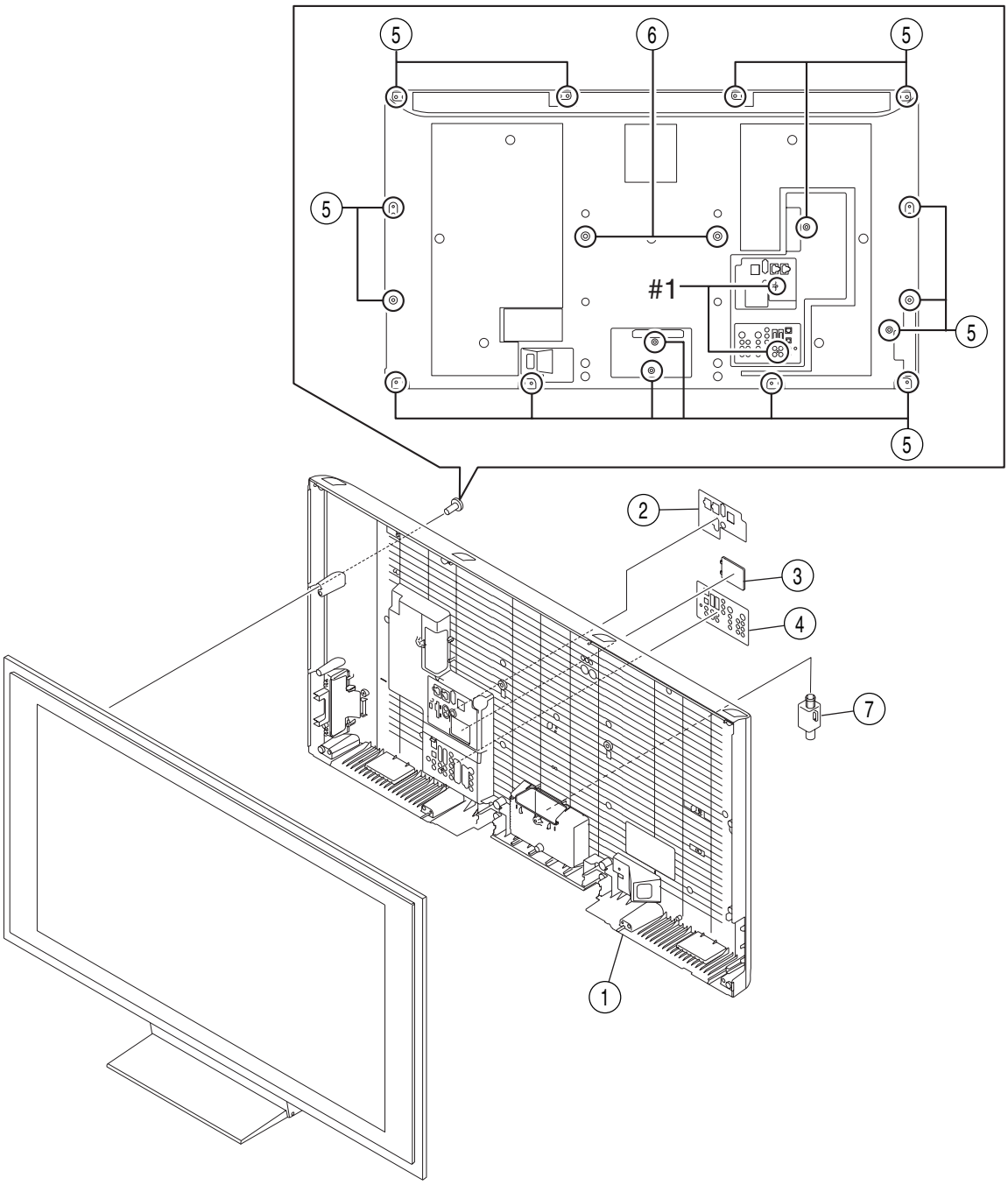
The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

The components identified by mark 🔒 contain confidential information. Strictly follow the instructions whenever the components are repaired and/or replaced.

- Items with no part number and no description are not stocked because they are seldom required for roution service.
- The construction parts of an assembled part are indicated with a collation number in the remark colum.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

## 5-1. KLV-46X300A

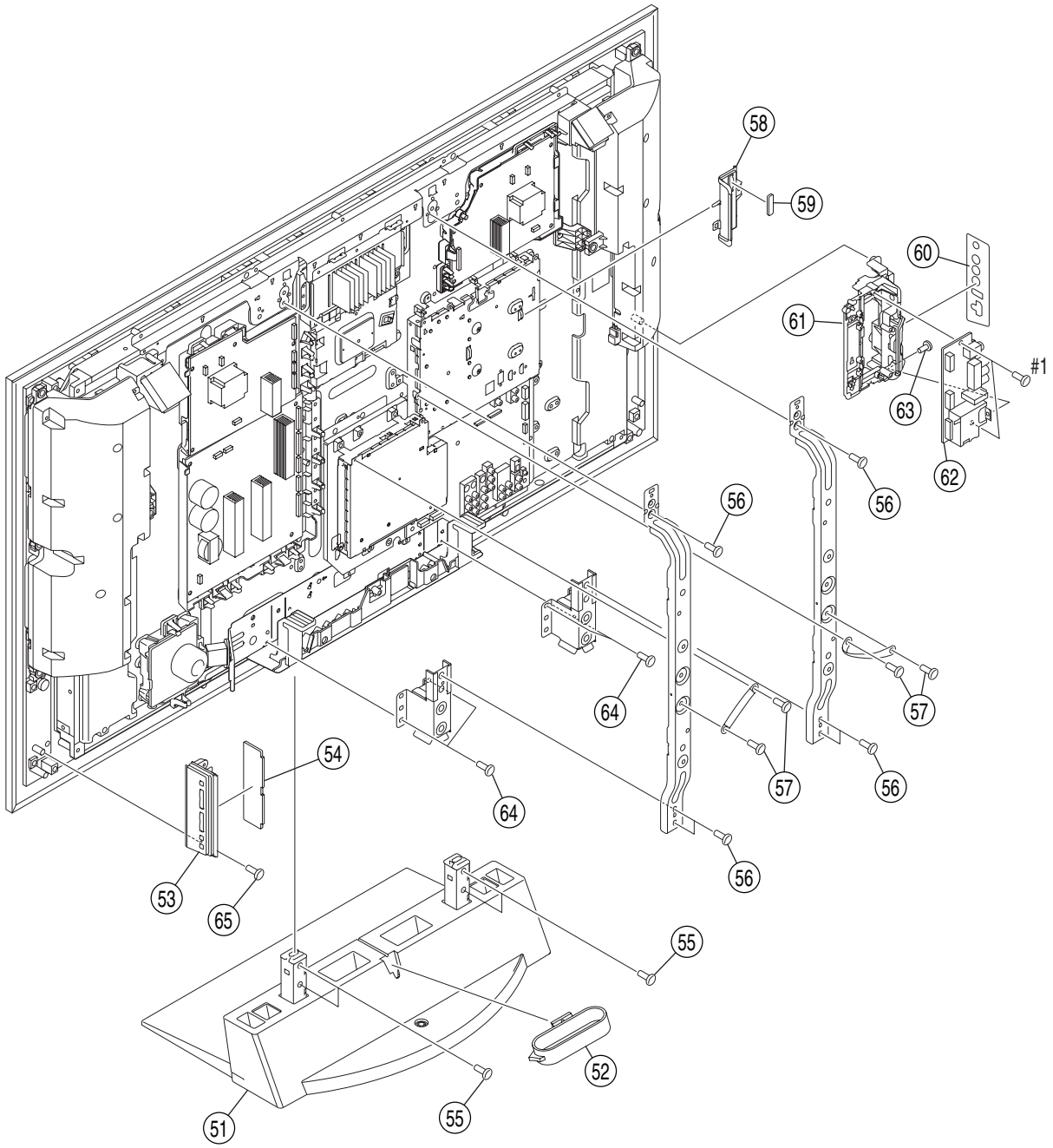
### 5-1-1. REAR COVER ASSY




| REF. No. | | PART No. | DESCRIPTION | MARK |
|---|---|---|---|---|
| 1 | ⚠ | X-2186-848-2 | COVER ASSY, REAR (46) | |
| 2 | | 3-274-400-01 | LABEL, HDMI | |
| 3 | | 2-673-535-11 | SERVICE COVER | |
| 4 | | 3-106-921-41 | LABEL, REAR TERMINAL | |
| 5 | | 2-580-640-01 | SCREW, +BVTP2 4X16 | |

| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 6 | 2-580-607-01 | SCREW, +PSW M5X12 | |
| 7 | 1-754-544-21 | ANTENNA (FOR ISOLATION) | |
| #1 | 7-685-648-79 | SCREW +BVTP 3X12 TYPE2 IT-3 | |

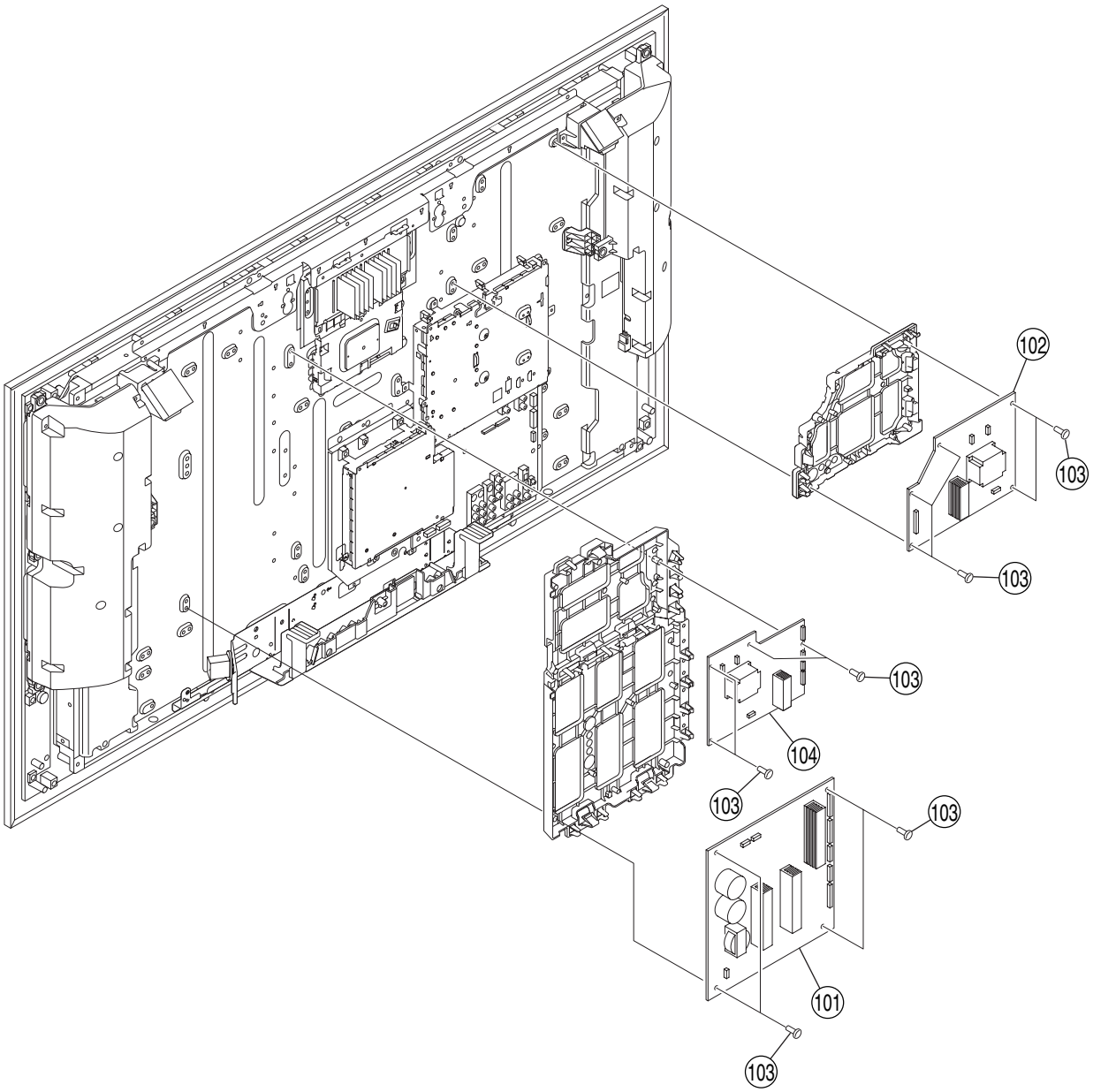
## 5-1-2. ARM ASSY AND STAND ASSY AND HW2 BOARD




| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 51 | X-2178-017-1 | STAND BASE (S) ASSY | |
| 52 | 2-595-155-02 | CLAMP | |
| 53 | X-2179-792-1 | CONTROL BUTTON ASSY | |
| 54 | A-1314-446-A | H1 MOUNT | |
| 55 | 2-580-607-01 | SCREW, +PSW M5X12 | |
| 56 | 2-580-606-01 | SCREW, +PSW M5X8 | |
| 57 | 2-580-629-01 | SCREW, +BVST 3X8 | |
| 58 | 3-106-942-41 | BRACKET, CARD | |
| 59 | 2-689-737-01 | COVER, MS | |
| 60 | 3-106-923-51 | LABEL, SIDE TERMINAL | |

| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 61 | 3-100-217-22 | BRACKET, SIDE TERMINAL | |
| 62 | A-1361-957-A | HW2 COMPL | |
| 63 | 2-580-591-01 | SCREW, +PSW M3X5 | |
| 64 | 2-580-630-01 | SCREW, +BVST 4X8 | |
| 65 | 2-580-640-01 | SCREW, +BVTP2 4X16 | |
| #1 | 7-685-648-79 | SCREW +BVTP 3X12 TYPE2 IT-3 | |

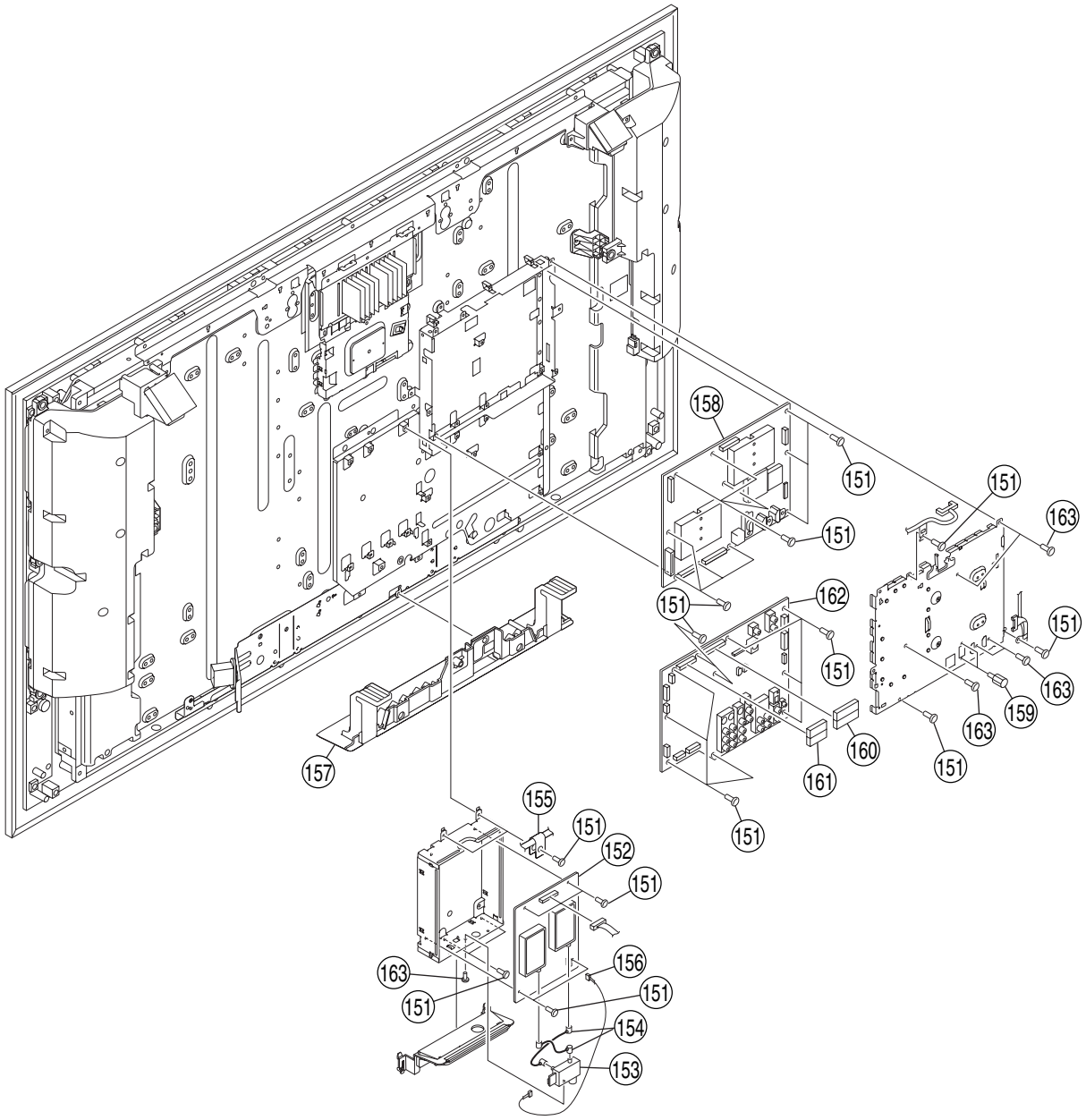
## KLV-46X300A
### 5-1-3. CHASSIS-1




| REF. No. | | PART No. | DESCRIPTION | MARK |
|---|---|---|---|---|
| 101 | ⚠ | A-1361-279-C | GF1 COMPL | |
| 102 | ⚠ | A-1253-586-B | DF3 MOUNT | |
| 103 | | 2-674-965-51 | SCREW, +PSW 3SG | |
| 104 | ⚠ | A-1253-585-B | DF2 MOUNT | |

| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|

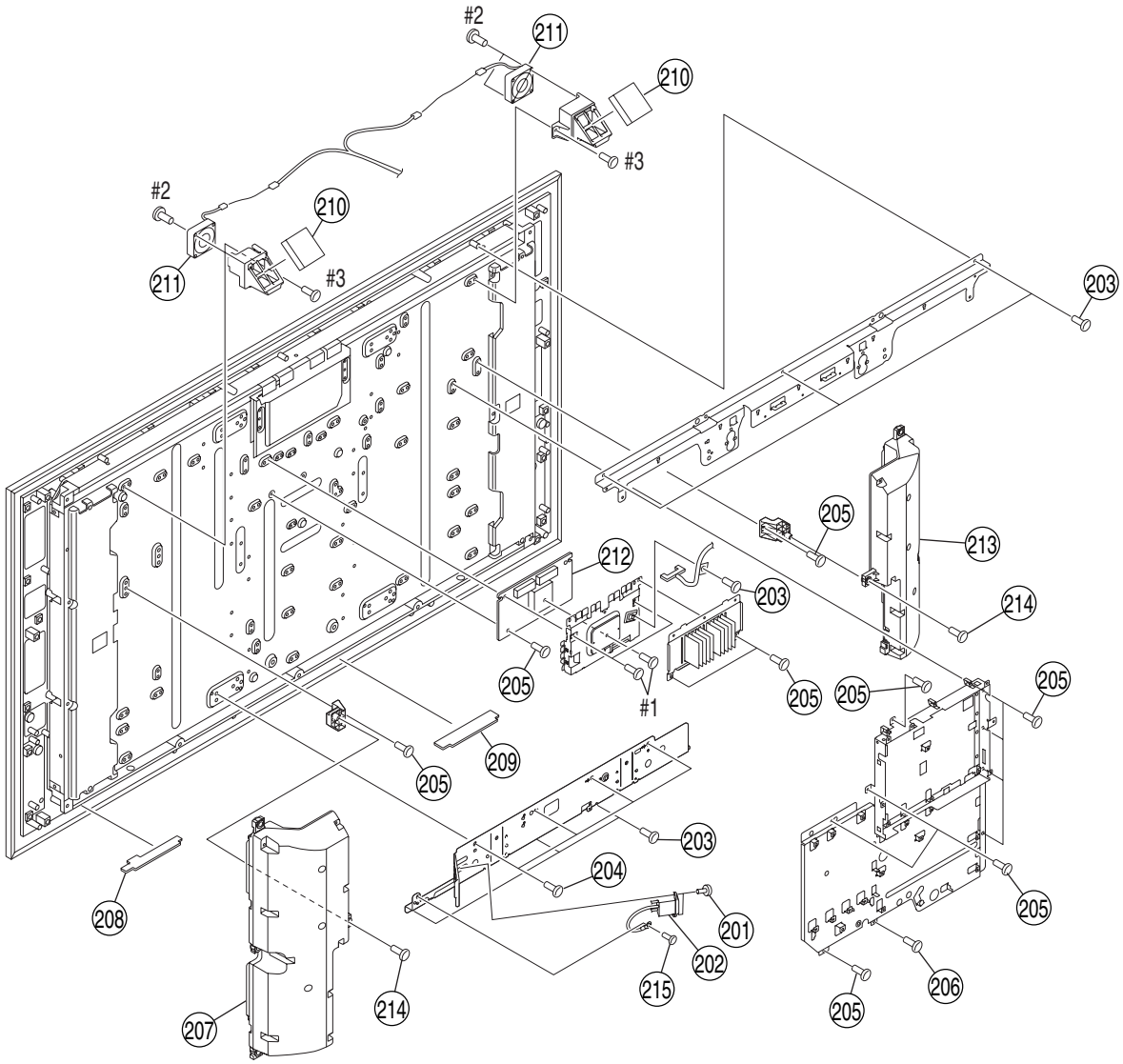
## KLV-46X300A
### 5-1-4. CHASSIS-2




The components identified by mark 🔒 contain confidential information. Strictly follow the instructions whenever the components are repaired and/or replaced.

| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 151 | 2-580-629-01 | SCREW, +BVST 3X8 | |
| 152 | A-1314-425-A | TUG MOUNT | |
| 153 | 1-251-658-41 | SPLITTER RF | |
| 154 | 1-558-924-21 | CABLE, PIN | |
| 155 | 4-035-862-01 | CLAMP, FG | |
| 156 | 1-910-029-20 | EH CONNECTOR ASSY 2P | |
| 157 | 3-100-210-02 | UNDER COVER (S) | |
| 158⚠🔒 | A-1362-571-A | FB2 COMPL | |
| 159 | 4-635-966-01 | SCREW (HEX) | |
| 160 | 1-821-375-11 | BOARD TO BOARD CONNECTOR 80P | |
| 161 | 1-821-376-11 | BOARD TO BOARD CONNECTOR 50P | |
| 162 | A-1314-443-A | AG COMPL | |
| 163 | 2-580-591-01 | SCREW, +PSW M3X5 | |

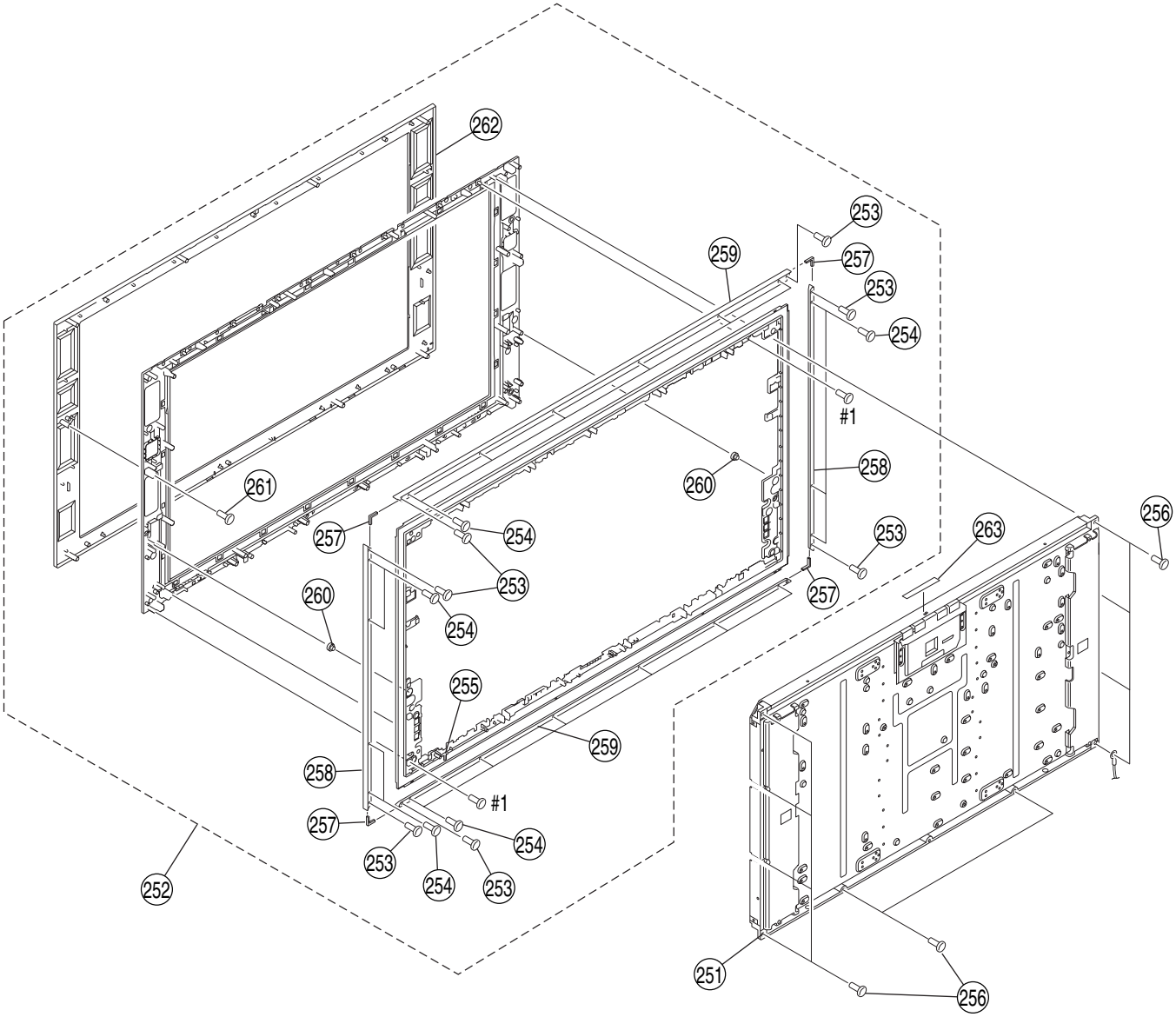
## KLV-46X300A
### 5-1-5. FAN AND SPEAKER




| REF. No. | | PART No. | DESCRIPTION | MARK |
|---|---|---|---|---|
| 201 | | 2-596-649-01 | +KTT 3X10 (S TYPE) | |
| 202 | ⚠ | 1-821-380-11 | INLET, AC (WITH NOISE FILTER) | |
| 203 | | 2-580-640-01 | SCREW, +BVTP2 4X16 | |
| 204 | | 2-580-606-01 | SCREW, +PSW M5X8 | |
| 205 | | 2-580-591-01 | SCREW, +PSW M3X5 | |
| 206 | | 2-580-630-01 | SCREW, +BVST 4X8 | |
| 207 | | 1-826-696-21 | LOUDSPEAKER | |
| 208 | | A-1314-447-A | H3 MOUNT | |
| 209 | | A-1314-448-A | H4 MOUNT | |
| 210 | | 3-219-408-02 | FILTER, FAN | |

| REF. No. | | PART No. | DESCRIPTION | MARK |
|---|---|---|---|---|
| 211 | ⚠ | 1-787-677-11 | D.C. FAN | |
| 212 | | A-1253-530-A | UB1 MOUNT | |
| 213 | | 1-826-696-11 | LOUDSPEAKER | |
| 214 | | 2-580-654-01 | SCREW, +PWTP2 4X16 | |
| 215 | | 2-580-599-01 | SCREW, +PSW M4X6 | |
| #2 | | 7-685-650-79 | SCREW +BVTP 3X16 TYPE2 IT-3 | |
| #3 | | 7-682-948-01 | SCREW +PSW 3X8 | |

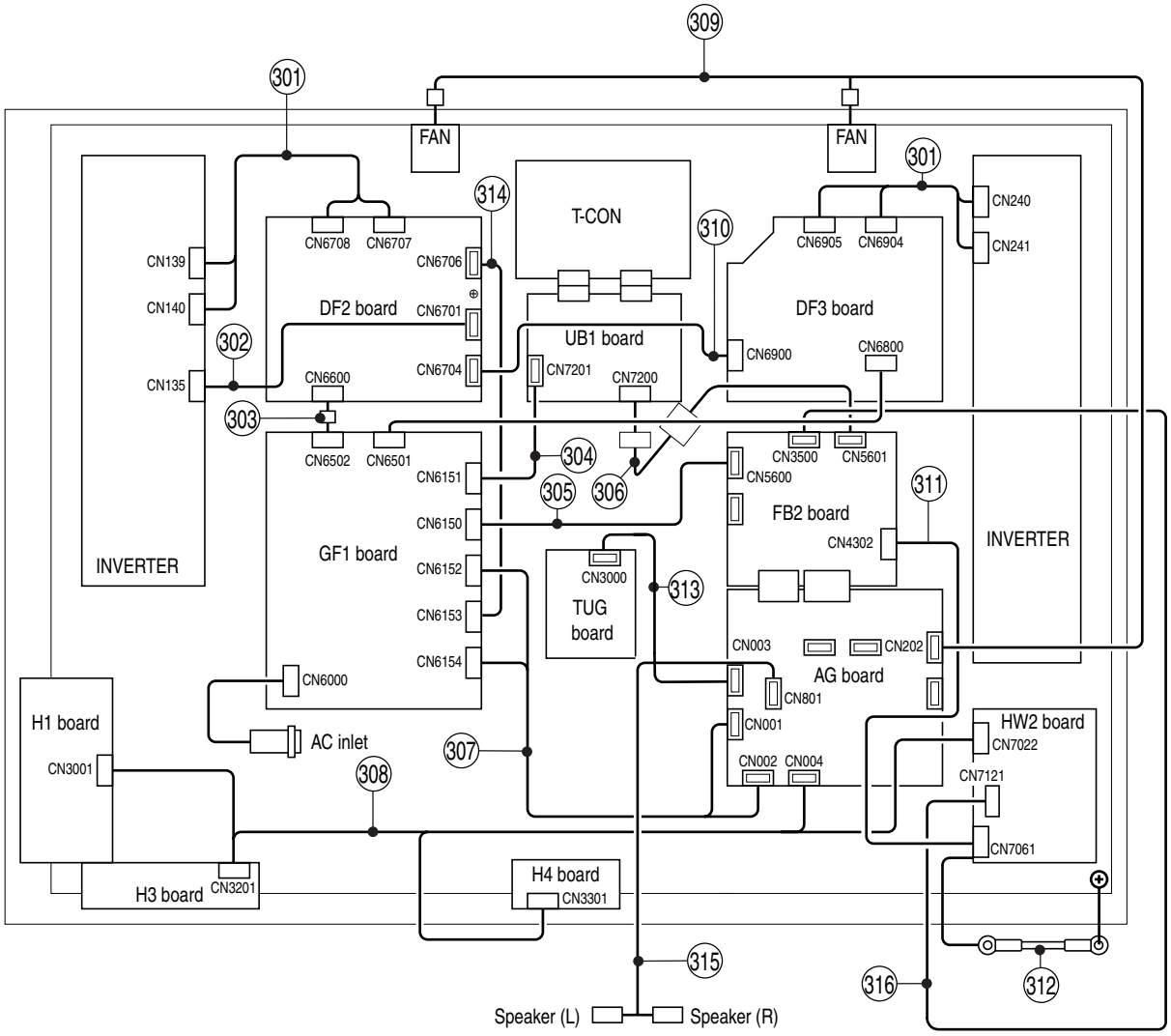
## 5-1-6. FRONT CABINET ASSY AND LCD PANEL




| REF. No. | | PART No. | DESCRIPTION | MARK |
|---|---|---|---|---|
| 251 | ⚠ | 1-802-491-12 | LCD PANEL (46INCH FHD HFR) | |
| 252 | ⚠ | X-2179-559-1 | FRONT CABINET ASSY(46) 253, 254, 255, 257, 258, 259, 260, 261, 262, #1 | |
| 253 | | 2-694-106-01 | SCREW, M2 TAPING | |
| 254 | | 2-694-107-01 | SCREW, FIXED | |
| 255 | | X-2179-737-1 | IR GUIDE ASSY | |
| 256 | | 2-580-640-01 | SCREW, +BVTP2 4X16 | |
| 257 | | 2-673-391-01 | ORNAMENTAL, JOINT | |
| 258 | | 2-673-390-11 | ORNAMENTAL, FRAME V (46) | |
| 259 | | 2-673-389-11 | ORNAMENTAL, FRAME H (46) | |
| 260 | | 2-673-579-02 | BEZEL BUSH | |

| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 261 | 2-687-999-01 | SCREW, LINE HEX PSW M3X12 | |
| 262 | X-2178-015-2 | BEZEL ASSY (46) | |
| 263 | 4-090-795-01 | GASKET IB | |
| #1 | 7-685-648-79 | SCREW +BVTP 3X12 TYPE2 IT-3 | |

## 5-1-7. CONNECTOR ASSY

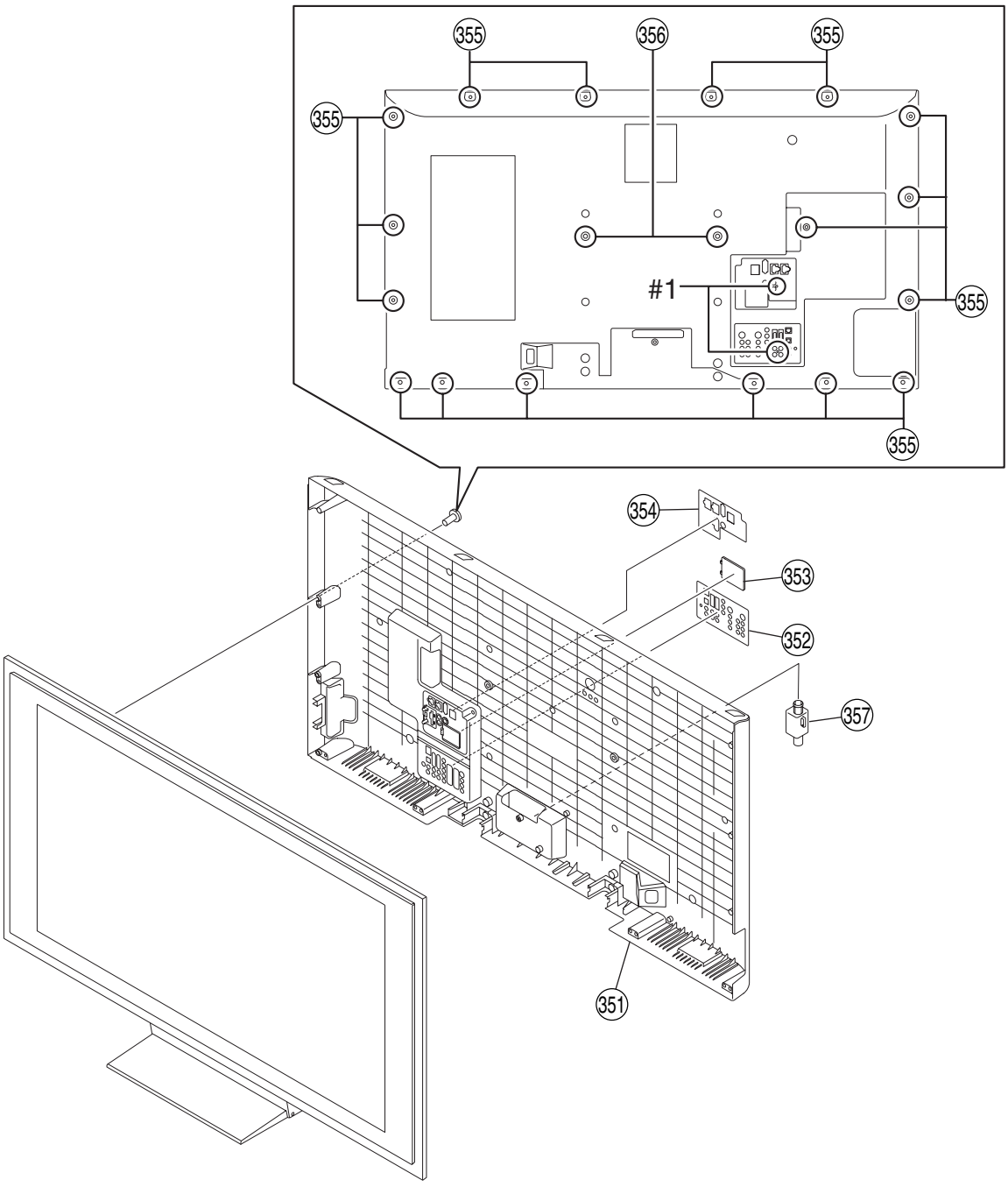



| REF. No. | | PART No. | DESCRIPTION | MARK |
|---|---|---|---|---|
| 301 | ⚠ | 1-834-263-11 | CONNECTOR ASSY | |
| 302 | | 1-910-036-92 | XA CONNECTOR ASSY (BL) 7P | |
| 303 | | 1-910-036-81 | VH CONNECTORASSY (DF1) 3P | |
| 304 | | 1-910-037-00 | XA CONNECTOR ASSY (UB) 6P | |
| 305 | | 1-910-041-82 | XA CONNECTOR ASSY (FB) 13P | |
| 306 | | 1-834-619-11 | LEAD WIRE WITH CONNECTOR (LVDS) | |
| 307 | | 1-910-040-25 | XA CONNECTOR ASSY (A) | |
| 308 | | 1-910-041-46 | MO1929 CONNECTORASSY (H) 40P | |
| 309 | | 1-910-040-37 | GH CONNECTOR ASSY (FAN) 6P | |
| 310 | | 1-910-036-91 | CONNECTOR ASSY (DF3) | |

| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 311 | 1-834-140-21 | LEAD WIRE WITH CONNECTOR (LVDS) | |
| 312 | 1-910-039-50 | FASTEN CONNECTOR ASSY (HW2) | |
| 313 | 1-910-037-69 | SHLDP CONNECTOR ASSY 20P | |
| 314 | 1-910-036-82 | XA CONNECTORASSY (DF1) 9P | |
| 315 | 1-910-041-44 | VH CONNECTOR ASSY (SP) 4P | |
| 316 | 1-910-037-63 | CONNECTOR ASSY (USB) | |

## 5-2. KLV-52X300A

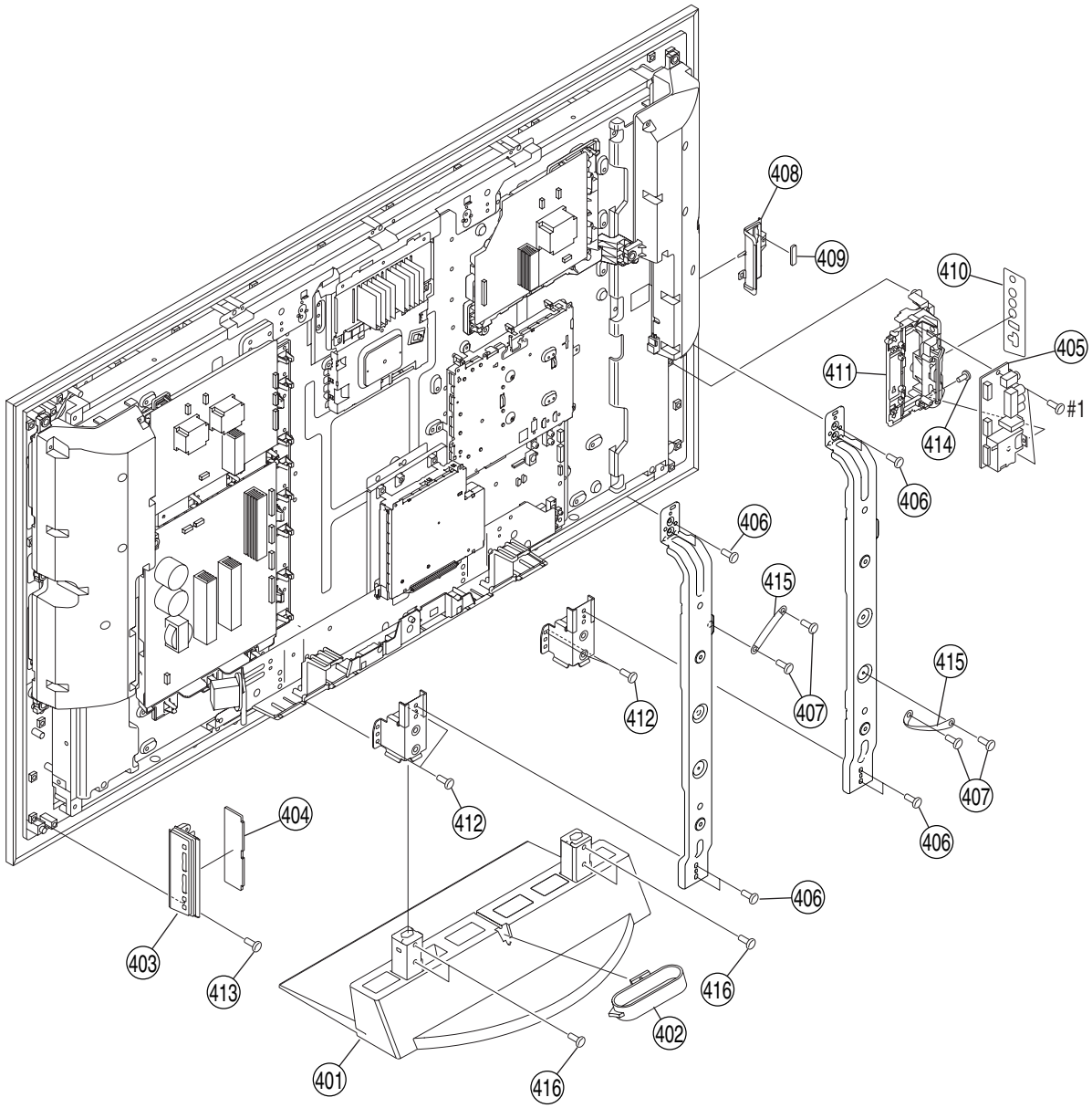
### 5-2-1. REAR COVER ASSY




| REF. No. | | PART No. | DESCRIPTION | MARK |
|---|---|---|---|---|
| 351 | ⚠ | X-2186-900-2 | REAR COVER ASSY (52) | |
| 352 | | 3-106-921-41 | LABEL, REAR TERMINAL | |
| 353 | | 2-673-535-11 | SERVICE COVER | |
| 354 | | 3-274-400-01 | LABEL, HDMI | |
| 355 | | 2-580-640-01 | SCREW, +BVTP2 4X16 | |

| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 356 | 2-580-607-01 | SCREW, +PSW M5X12 | |
| 357 | 1-754-544-21 | ANTENNA (FOR ISOLATION) | |
| #1 | 7-685-648-79 | SCREW +BVTP 3X12 TYPE2 IT-3 | |

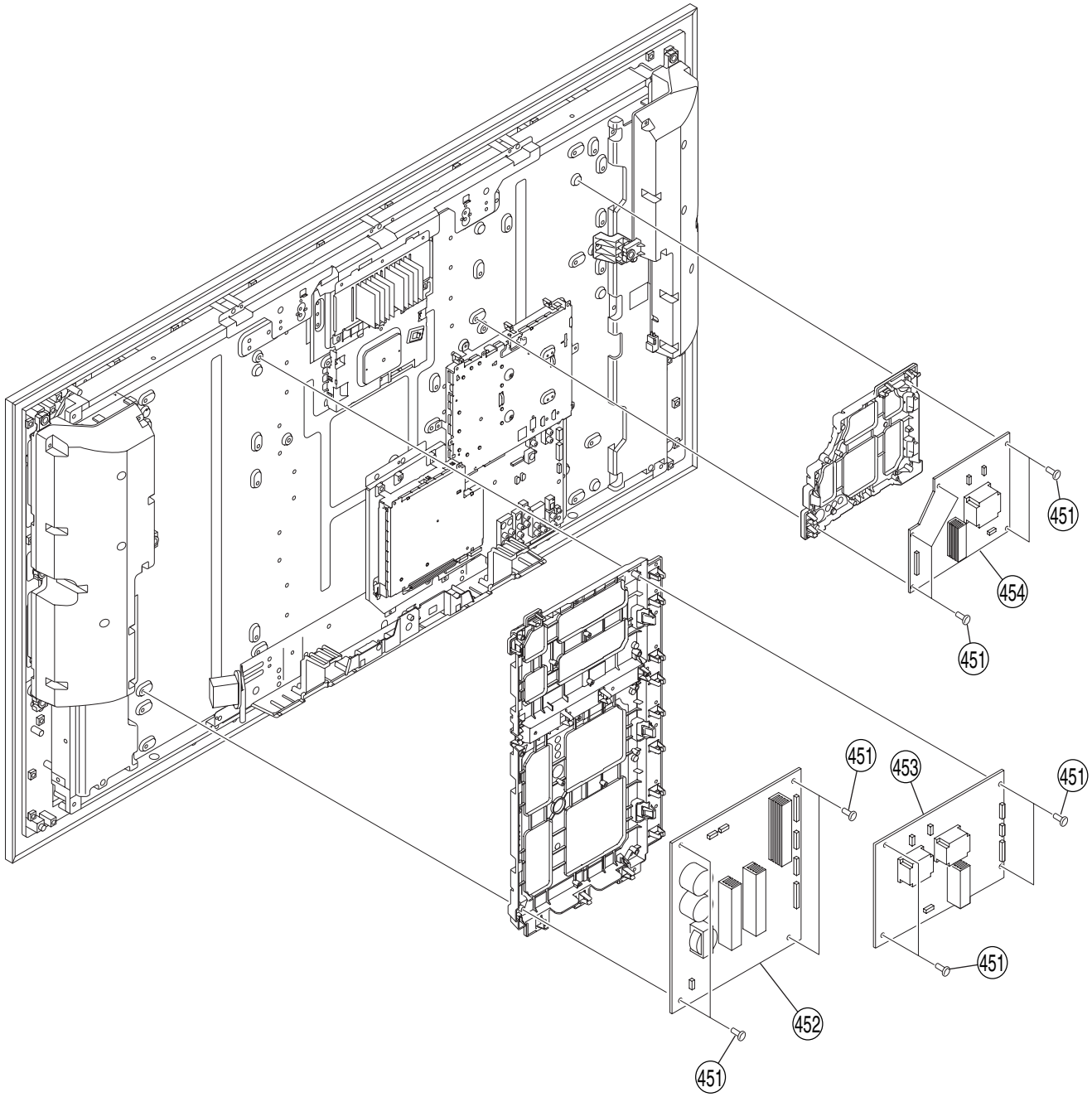
## 5-2-2. ARM ASSY AND STAND ASSY AND HW2 BOARD




| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 401 | X-2178-018-1 | STAND BASE (L) ASSY | |
| 402 | 2-595-155-02 | CLAMP | |
| 403 | X-2179-792-1 | CONTROL BUTTON ASSY | |
| 404 | A-1314-446-A | H1 MOUNT | |
| 405 | A-1361-957-A | HW2 COMPL | |
| 406 | 2-580-606-01 | SCREW, +PSW M5X8 | |
| 407 | 2-580-629-01 | SCREW, +BVST 3X8 | |
| 408 | 3-106-942-41 | BRACKET, CARD | |
| 409 | 2-689-737-01 | COVER, MS | |
| 410 | 3-106-923-51 | LABEL, SIDE TERMINAL | |

| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 411 | 3-100-217-22 | BRACKET, SIDE TERMINAL | |
| 412 | 2-580-630-01 | SCREW, +BVST 4X8 | |
| 413 | 2-580-654-01 | SCREW, +PWTP2 4X16 | |
| 414 | 2-580-591-01 | SCREW, +PSW M3X5 | |
| 415 | 1-910-038-17 | CONNECTOR ASSY (LUG) | |
| 416 | 2-580-607-01 | SCREW, +PSW M5X12 | |
| #1 | 7-685-648-79 | SCREW +BVTP 3X12 TYPE2 IT-3 | |

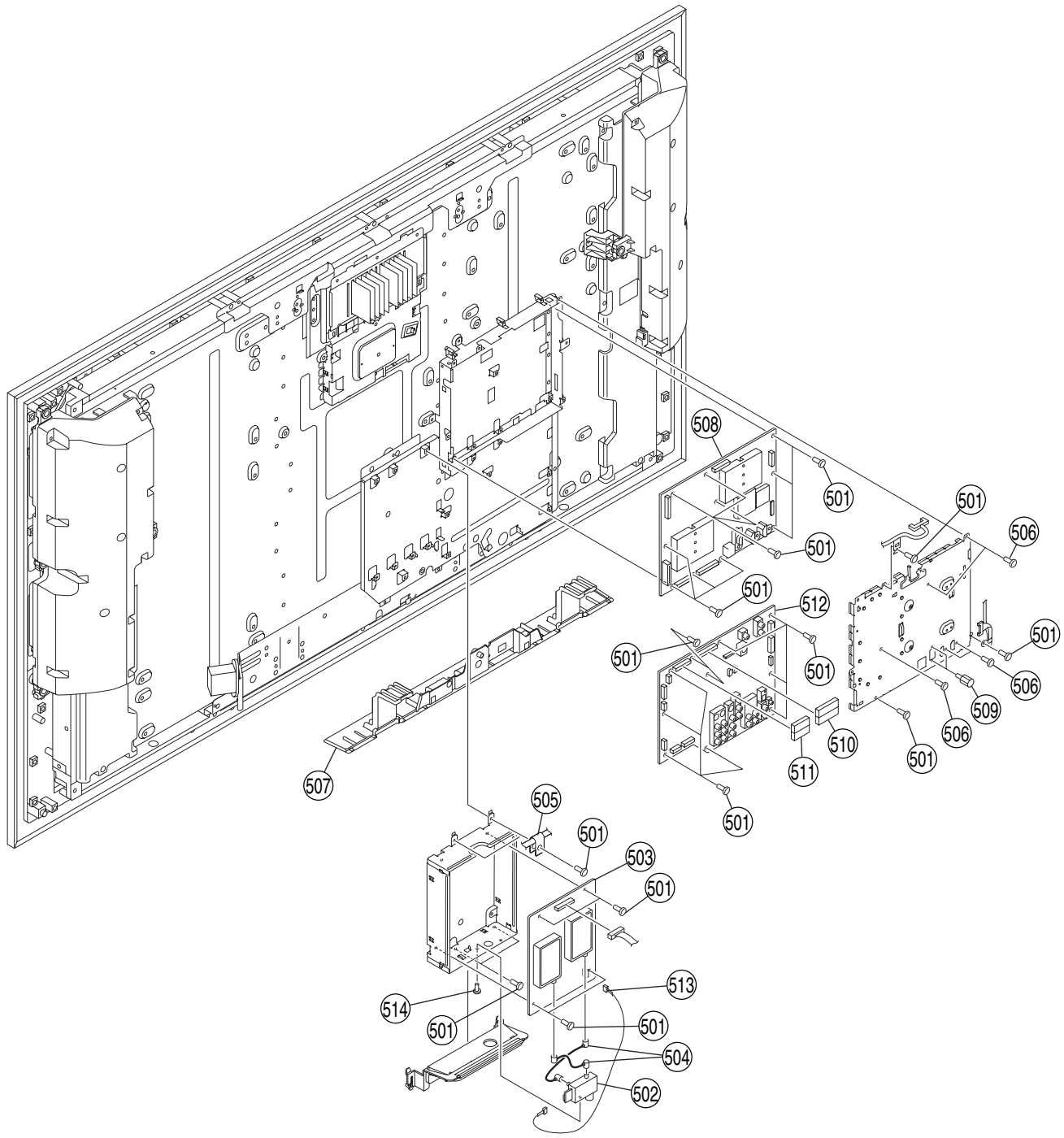
## 5-2-3. CHASSIS-1




| REF. No. | | PART No. | DESCRIPTION | MARK |
|---|---|---|---|---|
| 451 | | 2-674-965-51 | SCREW, +PSW 3SG | |
| 452 | ⚠ | A-1253-588-B | DF5 MOUNT | |
| 453 | ⚠ | A-1253-587-B | DF4 MOUNT | |
| 454 | ⚠ | A-1361-550-C | GF2 COMPL | |

| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|

## KLV-52X300A
### 5-2-4. CHASSIS-2

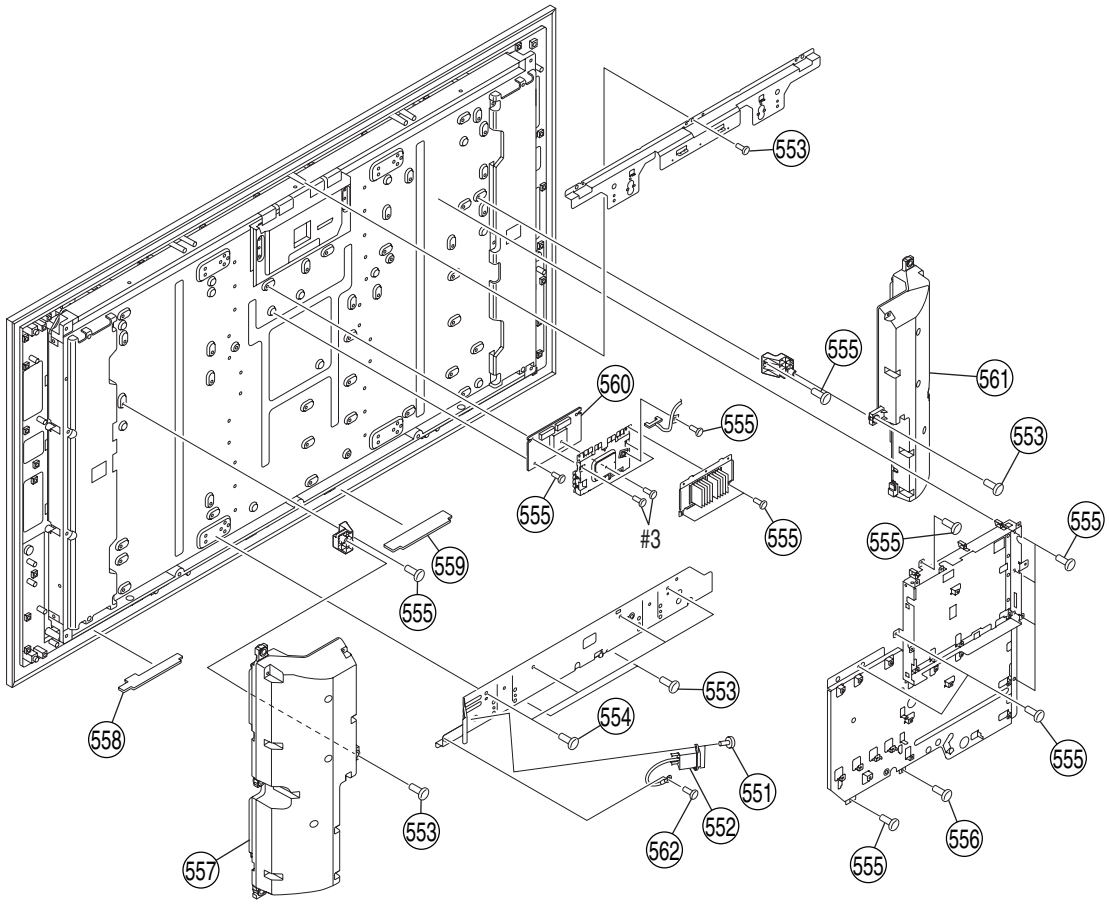



The components identified by mark 🔒 contain confidential information. Strictly follow the instructions whenever the components are repaired and/or replaced.

| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 501 | 2-580-629-01 | SCREW, +BVST 3X8 | |
| 502 | 1-251-658-41 | SPLITTER RF | |
| 503 | A-1314-425-A | TUG MOUNT | |
| 504 | 1-558-924-21 | CABLE, PIN | |
| 505 | 4-035-862-01 | CLAMP, FG | |
| 506 | 2-580-591-01 | SCREW, +PSW M3X5 | |
| 507 | 3-100-425-02 | UNDER COVER (L) | |
| 508⚠🔒 | A-1362-571-A | FB2 COMPL | |
| 509 | 4-635-966-01 | SCREW (HEX) | |
| 510 | 1-821-375-11 | BOARD TO BOARD CONNECTOR 80P | |

| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 511 | 1-821-376-11 | BOARD TO BOARD CONNECTOR 50P | |
| 512 | A-1237-295-A | AG MOUNT | |
| 513 | 1-910-029-20 | EH CONNECTOR ASSY 2P | |

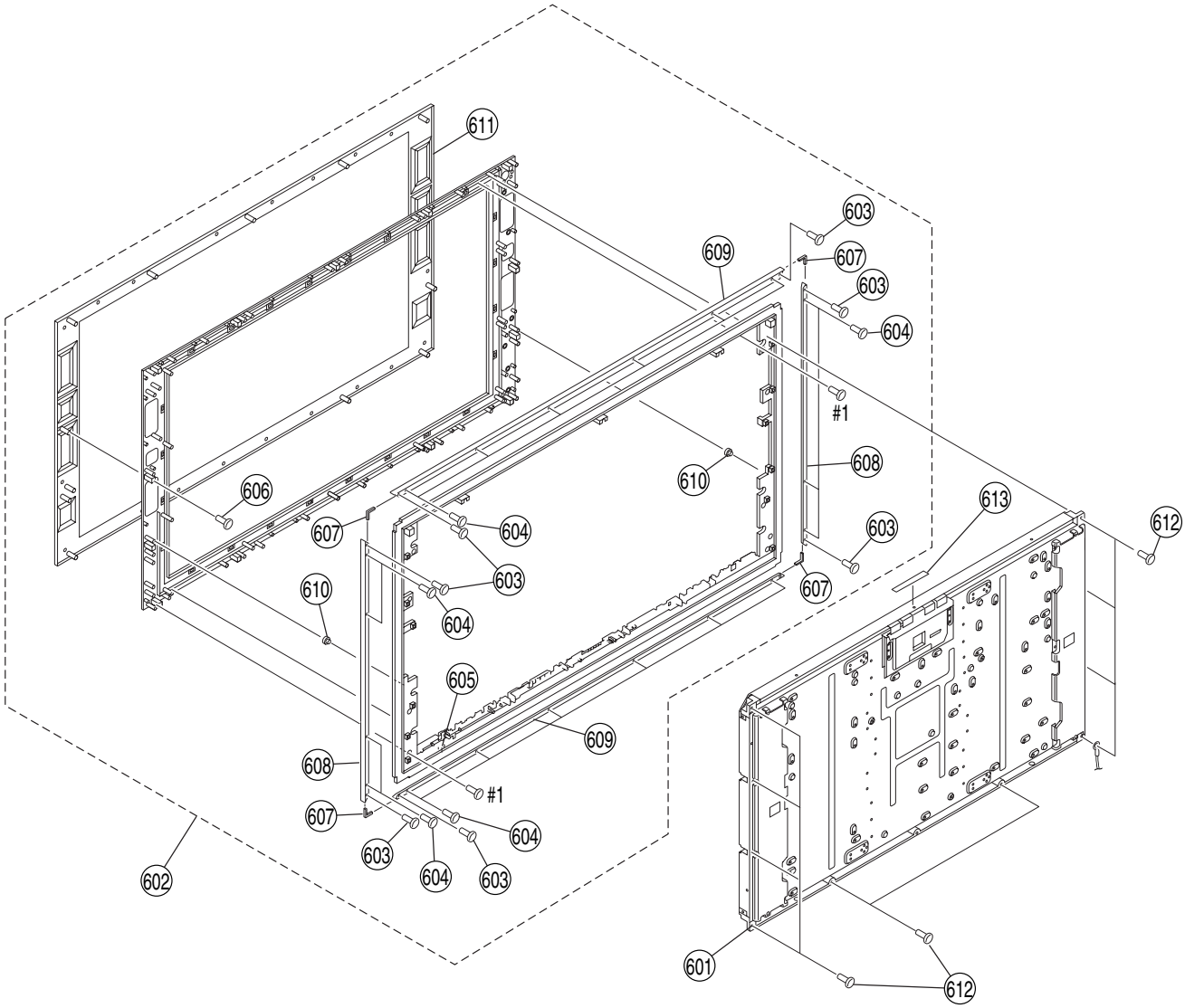
## 5-2-5. FAN AND SPEAKER




| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 551 | 2-596-649-01 | +KTT 3X10 (S TYPE) | |
| 552 | ⚠ 1-819-729-14 | INLET, AC (WITH NOISE FILTER) | |
| 553 | 2-580-640-01 | SCREW, +BVTP2 4X16 | |
| 554 | 2-580-606-01 | SCREW, +PSW M5X8 | |
| 555 | 2-580-591-01 | SCREW, +PSW M3X5 | |
| 556 | 2-580-630-01 | SCREW, +BVST 4X8 | |
| 557 | 1-826-696-21 | LOUDSPEAKER | |
| 558 | A-1314-447-A | H3 MOUNT | |
| 559 | A-1314-448-A | H4 MOUNT | |
| 560 | A-1253-530-A | UB1 MOUNT | |

| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 561 | 1-826-696-11 | LOUDSPEAKER | |
| 562 | 2-580-599-01 | SCREW, +PSW M4X6 | |
| #3 | 7-682-948-01 | SCREW +PSW 3X8 | |

## 5-2-6. FRONT CABINET AND LCD PANEL

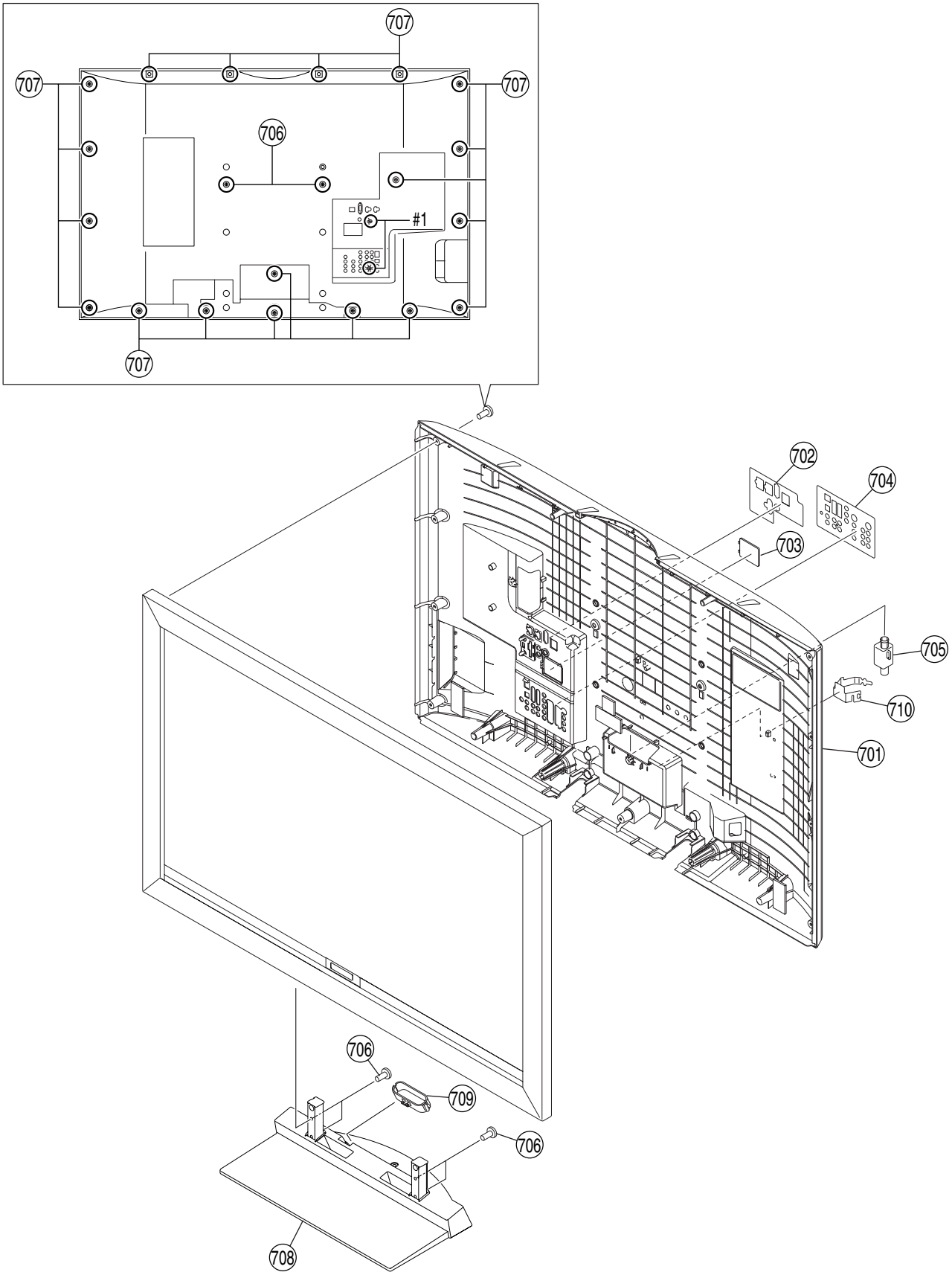



| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 601 | 1-802-490-31 | LCD PANEL (52 INCH FHD HFR) | |
| 602 | X-2179-560-1 | FRONT CABINET ASSY (52) 603, 604 605, 606, 607, 608, 609, 610, 611, #1 | |
| 603 | 2-694-106-01 | SCREW, M2 TAPING | |
| 604 | 2-694-107-01 | SCREW, FIXED | |
| 605 | X-2179-737-1 | IR GUIDE ASSY | |
| 606 | 2-687-999-01 | SCREW, LINE HEX PSW M3X12 | |
| 607 | 2-673-391-01 | ORNAMENTAL, JOINT | |
| 608 | 2-682-950-11 | ORNAMENTAL, FRAME V (52) | |
| 609 | 2-682-949-11 | ORNAMENTAL, FRAME H (52) | |
| 610 | 2-673-579-02 | BEZEL BUSH | |

| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 611 | X-2178-016-2 | BEZEL ASSY (52) | |
| 612 | 2-580-640-01 | SCREW, +BVTP2 4X16 | |
| 613 | 4-090-795-01 | GASKET IB | |
| #1 | 7-685-648-79 | SCREW +BVTP 3X12 TYPE2 IT-3 | |

## 5-3. KLV-46W380A

### 5-3-1. REAR COVER ASSY

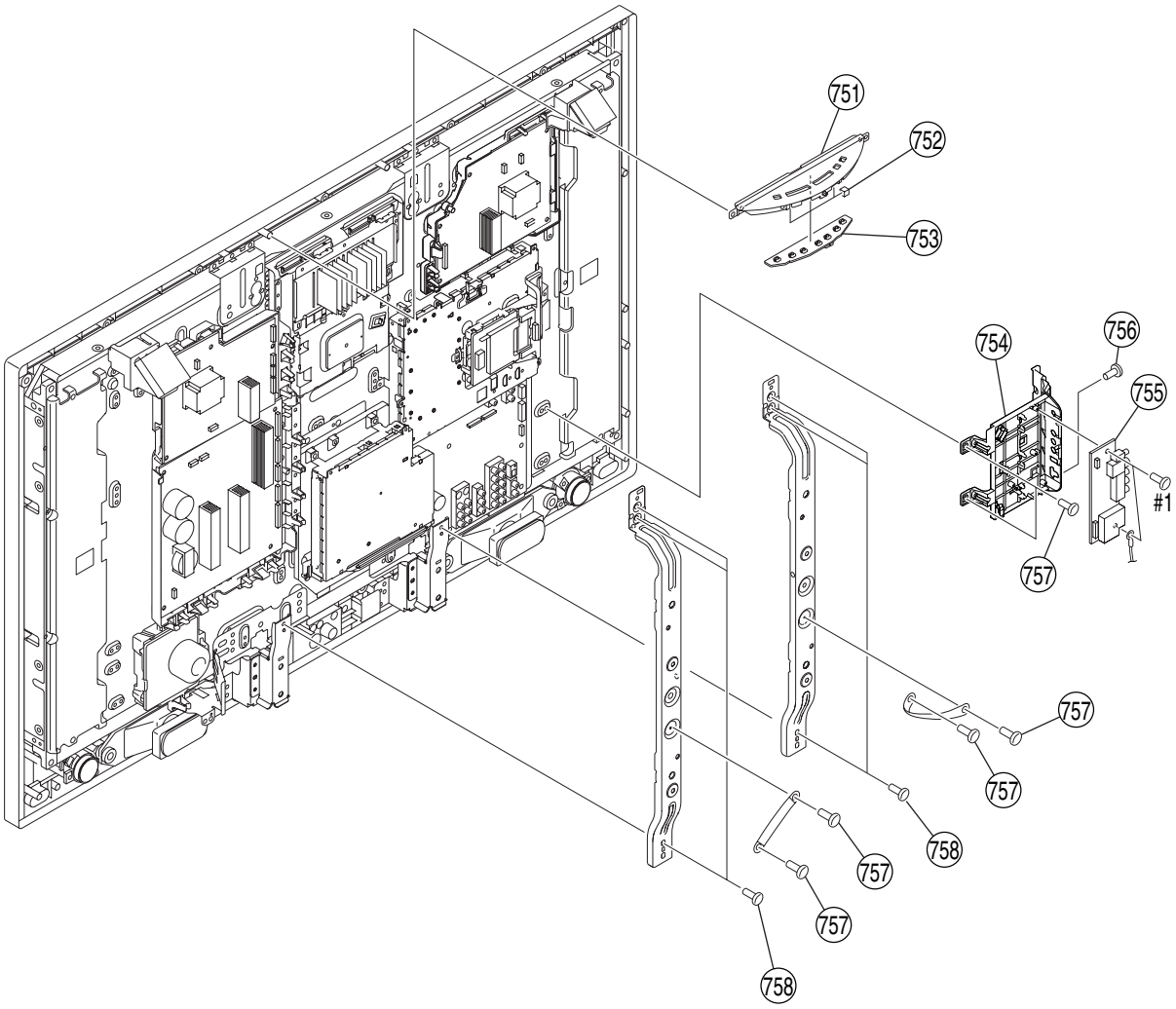



| REF. No. | | PART No. | DESCRIPTION | MARK |
|---|---|---|---|---|
| 701 | ⚠ | X-2179-461-1 | REAR COVER ASSY (46) | |
| 702 | | 3-274-400-01 | LABEL, HDMI | |
| 703 | | 2-673-535-11 | SERVICE COVER | |
| 704 | | 3-106-921-41 | LABEL, REAR TERMINAL | |
| 705 | | 1-754-544-21 | ANTENNA (FOR ISOLATION) | |

| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 706 | 2-580-607-01 | SCREW, +PSW M5X12 | |
| 707 | 2-580-640-01 | SCREW, +BVTP2 4X16 | |
| 708 | X-2189-838-1 | STAND (L), ASSY | |
| 709 | 2-595-155-02 | CLAMP | |
| 710 | 3-279-676-01 | CONNECTOR, HOLDER (FIX2) | |
| #1 | 7-685-648-79 | SCREW +BVTP 3X12 TYPE2 IT-3 | |

## KLV-46W380A

### 5-3-2. ARM ASSY AND STAND ASSY AND HW2 BOARD

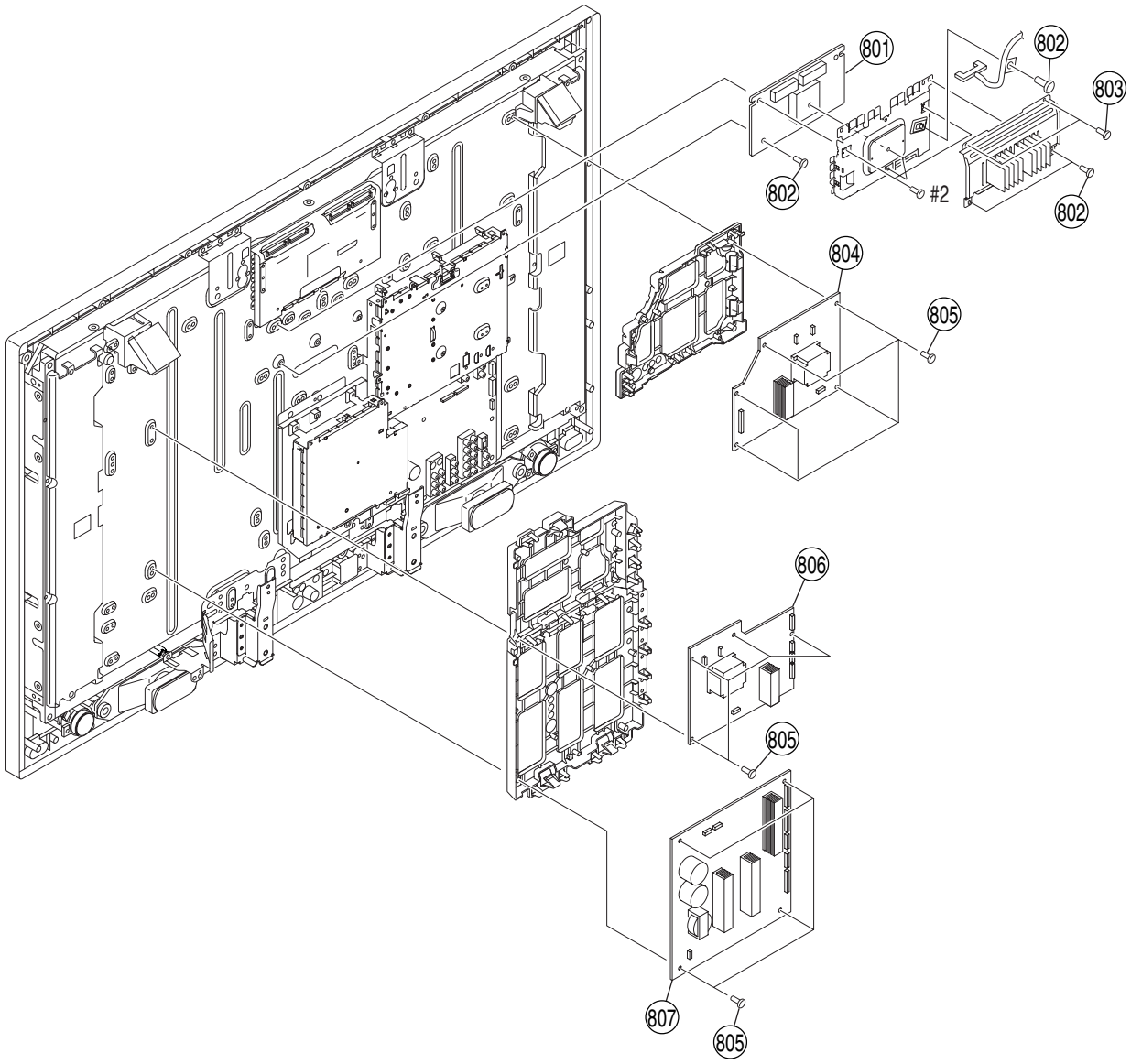



| REF. No. | | PART No. | DESCRIPTION | MARK |
|---|---|---|---|---|
| 751 | | X-2188-043-1 | BUTTON, MULTI ASSY | |
| 752 | * | 3-269-273-21 | SPACER, BUTTON | |
| 753 | | A-1314-427-B | HW1 MOUNT | |
| 754 | | 3-294-372-11 | BRACKET, SIDE TERMINAL | |
| 755 | | A-1314-449-A | HW2 MOUNT | |

| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 756 | 2-580-591-01 | SCREW, +PSW M3X5 | |
| 757 | 2-580-591-01 | SCREW, +PSW M3X5 | |
| 758 | 2-580-606-01 | SCREW, +PSW M5X8 | |
| #1 | 7-685-648-79 | SCREW +BVTP 3X12 TYPE2 IT-3 | |

## KLV-46W380A

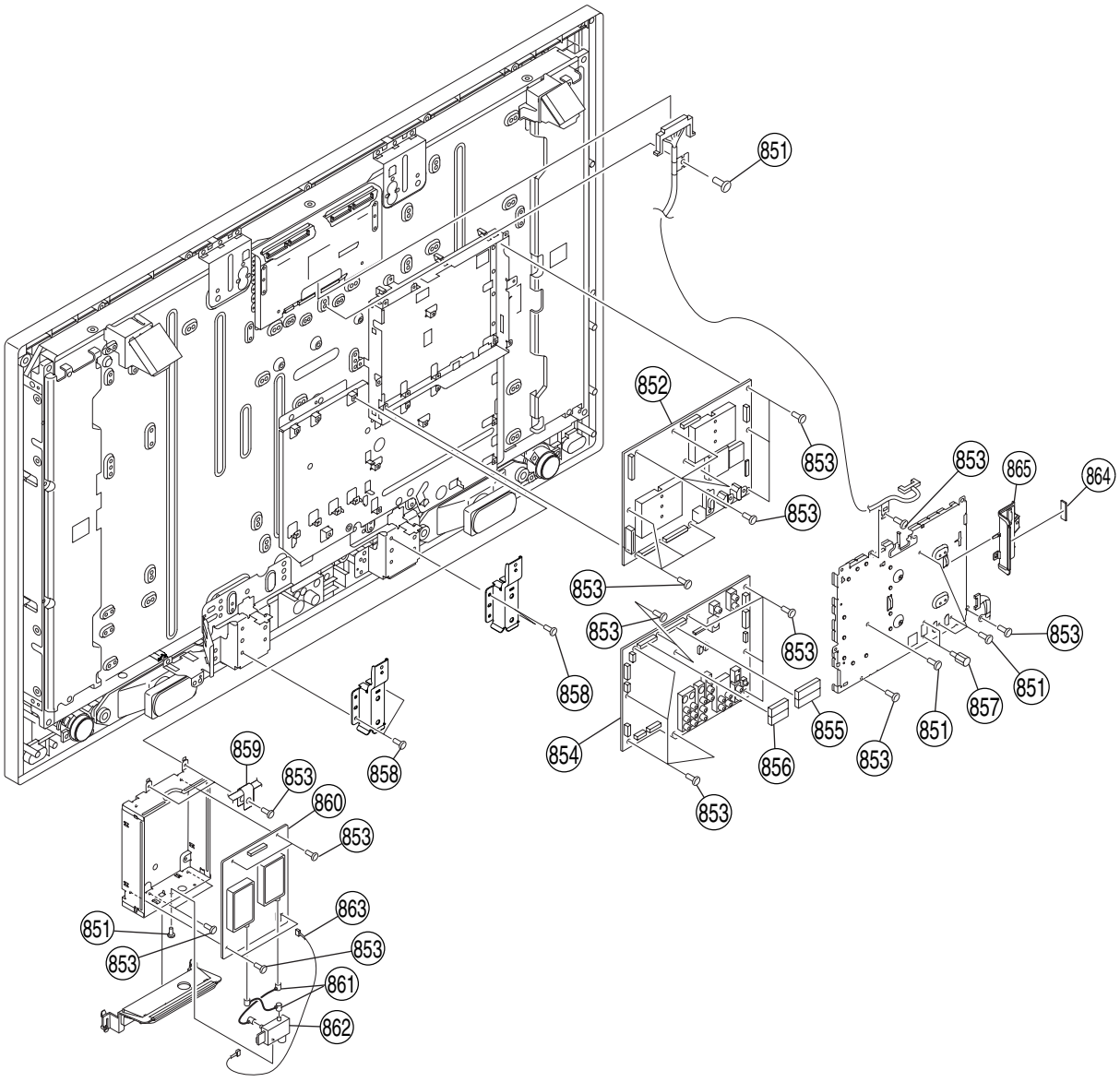
### 5-3-3. CHASSIS-1




| REF. No. | | PART No. | DESCRIPTION | MARK |
|---|---|---|---|---|
| 801 | | A-1519-918-B | UB2 COMPL | |
| 802 | | 2-580-591-01 | SCREW, +PSW M3X5 | |
| 803 | | 2-580-640-01 | SCREW, +BVTP2 4X16 | |
| 804 | ⚠ | A-1253-586-D | DF3 MOUNT | |
| 805 | | 2-674-965-51 | SCREW, +PSW 3SG | |

| REF. No. | | PART No. | DESCRIPTION | MARK |
|---|---|---|---|---|
| 806 | ⚠ | A-1253-585-D | DF2 MOUNT | |
| 807 | ⚠ | A-1362-549-C | GF1 COMPL | |
| #2 | | 7-682-948-01 | SCREW +PSW 3X8 | |

## 5-3-4. CHASSIS-2



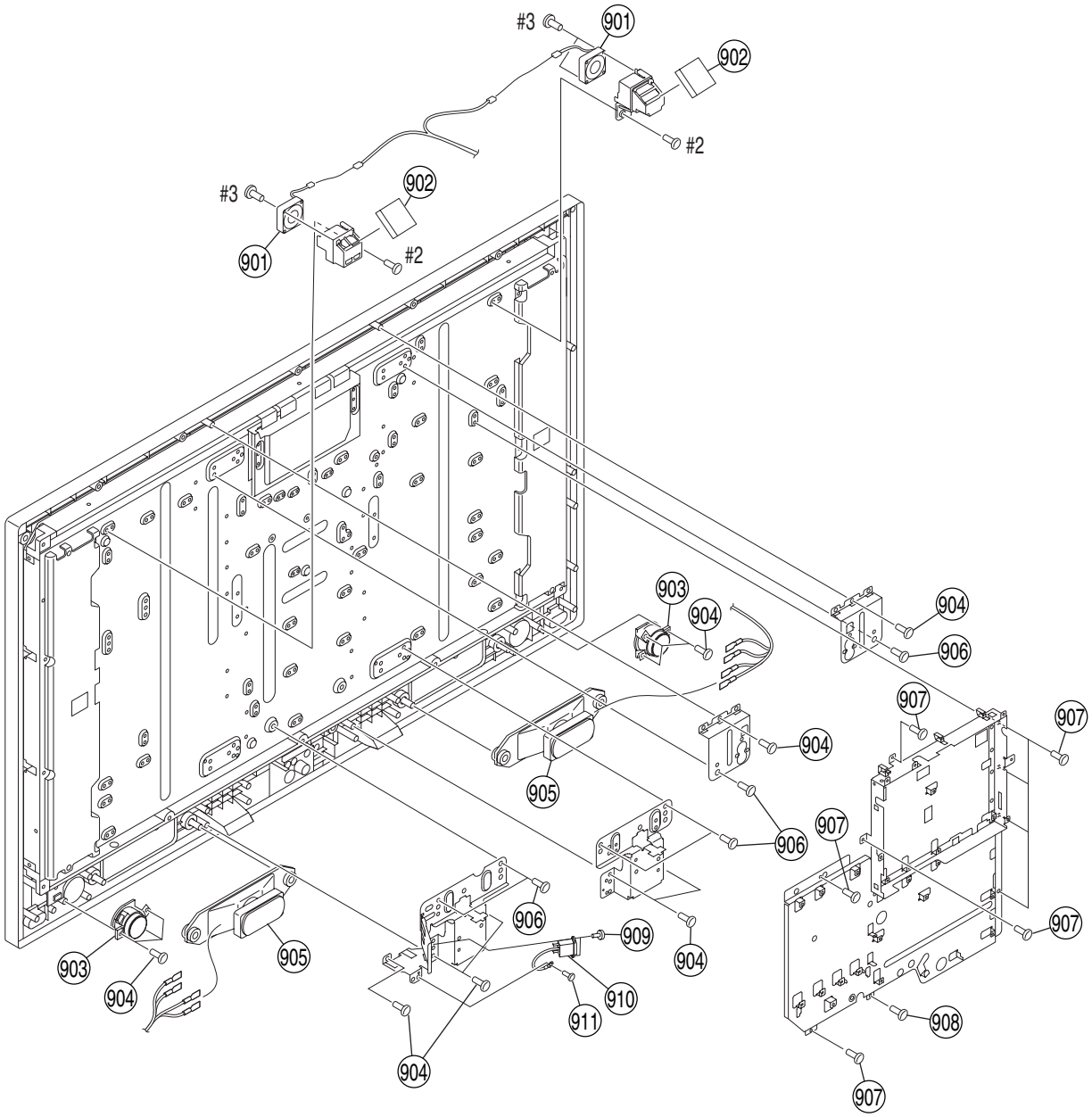

The components identified by mark 🔒 contain confidential information. Strictly follow the instructions whenever the components are repaired and/or replaced.

| REF. No. | | PART No. | DESCRIPTION | MARK |
|---|---|---|---|---|
| 851 | | 2-580-591-01 | SCREW, +PSW M3X5 | |
| 852 | 🔒 | A-1362-571-B | FB2 COMPL | |
| 853 | | 2-580-629-01 | SCREW, +BVST 3X8 | |
| 854 | | A-1314-443-A | AG COMPL | |
| 855 | | 1-821-375-11 | BOARD TO BOARD CONNECTOR 80P | |
| 856 | | 1-821-376-11 | BOARD TO BOARD CONNECTOR 50P | |
| 857 | | 4-635-966-01 | SCREW (HEX) | |
| 858 | | 2-580-630-01 | SCREW, +BVST 4X8 | |
| 859 | | 4-035-862-01 | CLAMP, FG | |
| 860 | | A-1314-425-C | TUG MOUNT | |

| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 861 | 1-558-924-21 | CABLE, PIN | |
| 862 | 1-251-658-41 | SPLITTER RF | |
| 863 | 1-910-029-20 | EH CONNECTOR ASSY 2P | |
| 864 | 2-689-737-01 | COVER, MS | |
| 865 | 3-106-942-41 | BRACKET, CARD | |

## KLV-46W380A

### 5-3-5. SPEAKER AND CHASSIS BRACKET

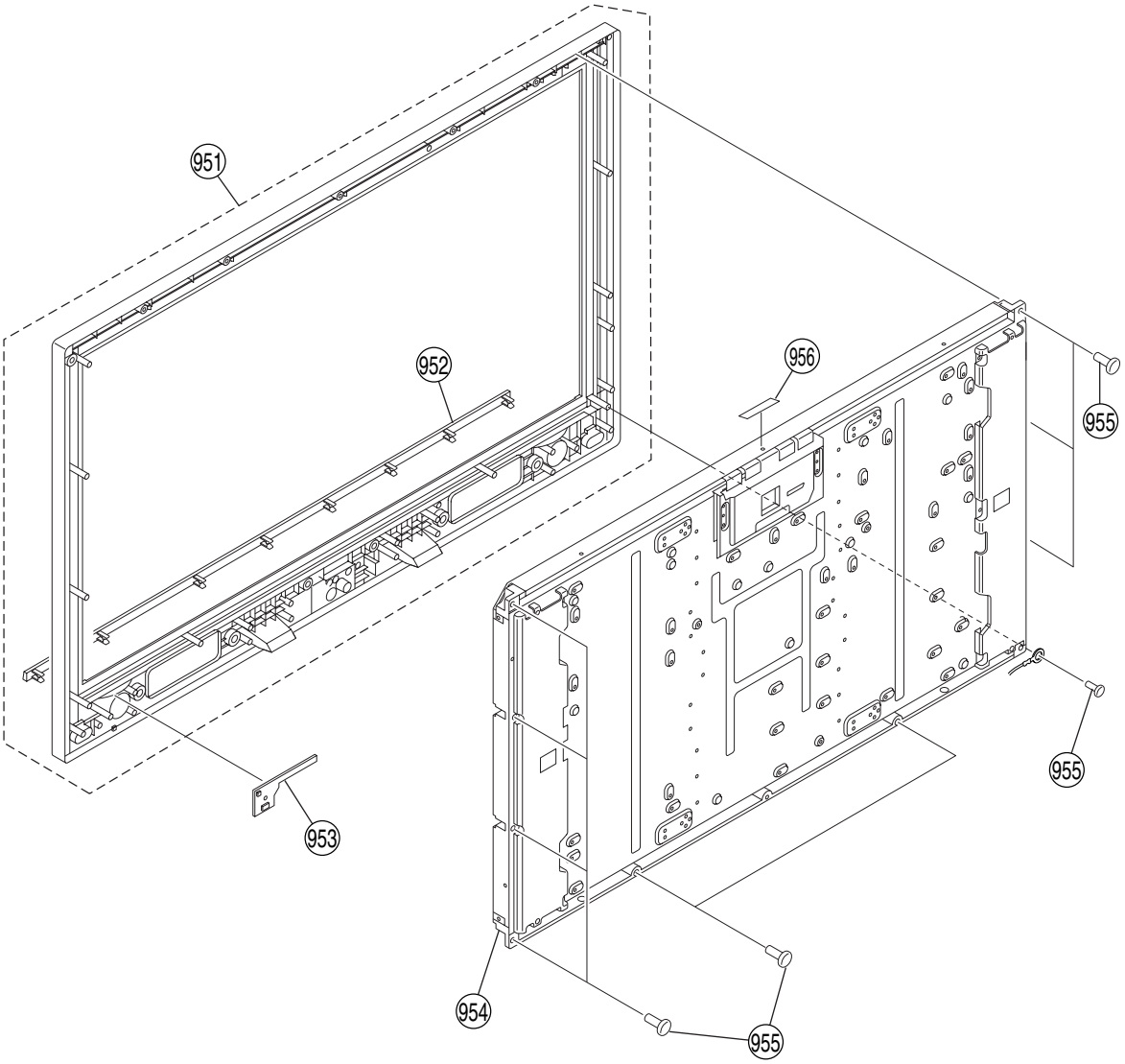



| REF. No. | | PART No. | DESCRIPTION | MARK |
|---|---|---|---|---|
| 901 | | 1-787-677-11 | D.C. FAN | |
| 902 | | 3-219-408-02 | FILTER, FAN | |
| 903 | | 1-826-695-11 | LOUDSPEAKER (40MM TWEETER) | |
| 904 | | 2-580-640-01 | SCREW, +BVTP2 4X16 | |
| 905 | | 1-826-698-11 | LOUD SPEAKER (5.5X15.5CM) | |
| 906 | | 2-580-606-01 | SCREW, +PSW M5X8 | |
| 907 | | 2-580-591-01 | SCREW, +PSW M3X5 | |
| 908 | | 2-580-630-01 | SCREW, +BVST 4X8 | |
| 909 | | 2-596-649-01 | +KTT 3X10 (S TYPE) | |
| 910 | ⚠ | 1-821-380-11 | INLET, AC (WITH NOISE FILTER) | |

| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 911 | 2-580-599-01 | SCREW, +PSW M4X6 | |
| #2 | 7-682-948-01 | SCREW +PSW 3X8 | |
| #3 | 7-685-650-79 | SCREW +BVTP 3X16 TYPE2 IT-3 | |

## KLV-46W380A

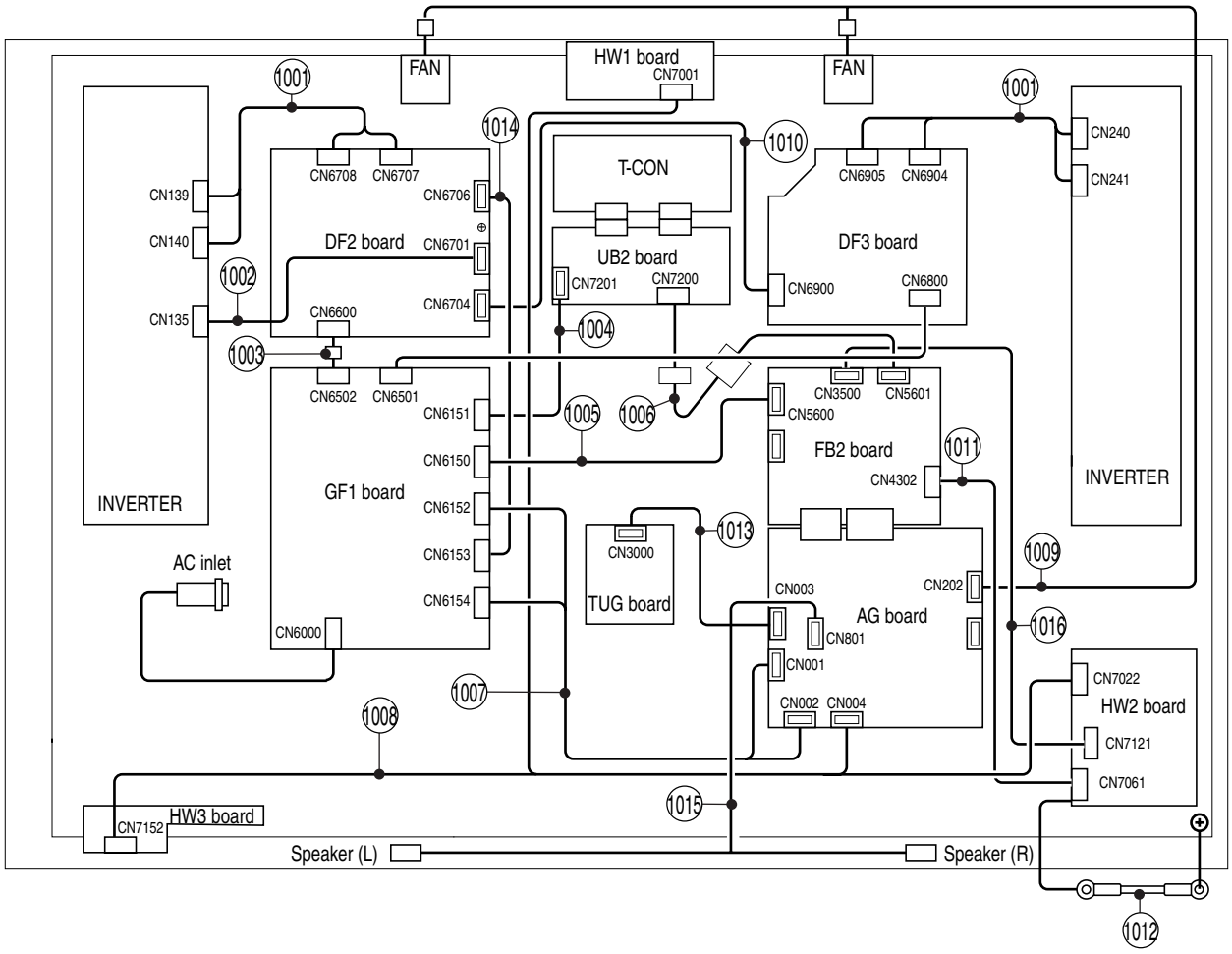
### 5-3-6. BEZEL AND LCD PANEL




| REF. No. | | PART No. | DESCRIPTION | MARK |
|---|---|---|---|---|
| 951 | | X-2189-790-2 | BEZEL ASSY (46) | 952 |
| 952 | | 3-272-565-21 | ORNAMENT (46) | |
| 953 | | A-1314-430-C | HW3 MOUNT | |
| 954 | ⚠ | 1-802-491-31 | LCD PANEL (46INCH FHD HFR) | |
| 955 | | 2-580-640-01 | SCREW, +BVTP2 4X16 | |

| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 956 | 4-090-795-01 | GASKET IB | |

## 5-3-7. CONNECTOR ASSY

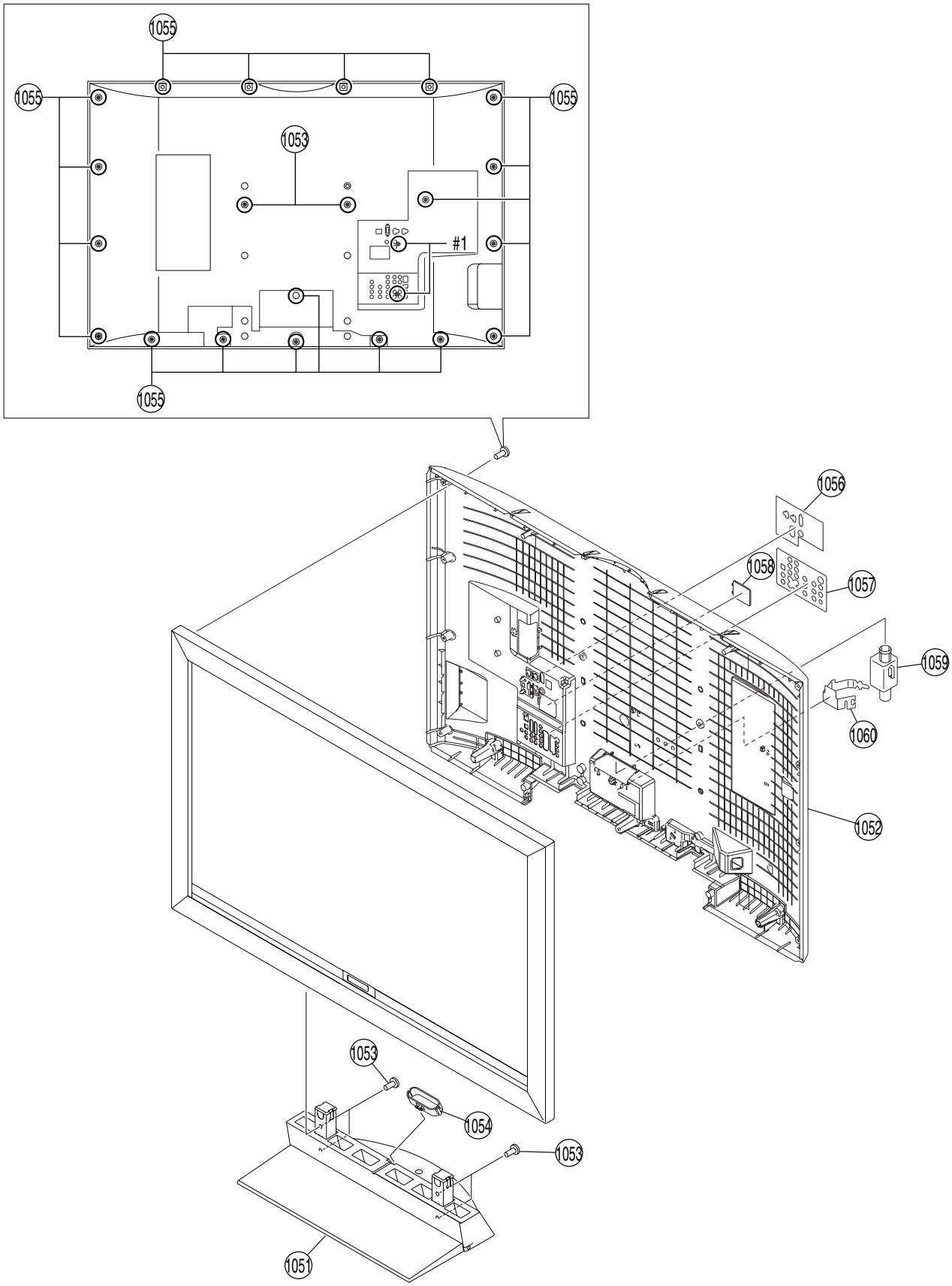



| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 1001 | 1-834-263-11 | CONNECTOR ASSY | |
| 1002 | 1-910-036-92 | XA CONNECTOR ASSY (BL) 7P | |
| 1003 | 1-910-036-81 | VH CONNECTORASSY (DF1) 3P | |
| 1004 | 1-910-037-00 | XA CONNECTOR ASSY (UB) 6P | |
| 1005 | 1-910-041-82 | XA CONNECTOR ASSY (FB) 13P | |
| 1006 | 1-834-619-11 | LEAD WIRE WITH CONNECTOR(LVDS) | |
| 1007 | 1-910-040-25 | XA CONNECTOR ASSY (A) | |
| 1008 | 1-910-042-14 | MO1929 CONNECTOR ASSY (H) 40P | |
| 1009 | 1-910-040-37 | GH CONNECTOR ASSY (FAN) 6P | |
| 1010 | 1-910-036-91 | CONNECTOR ASSY (DF3) | |

| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 1011 | 1-834-140-21 | LEAD WIRE WITH CONNECTOR (LVDS) | |
| 1012 * | 1-910-039-50 | FASTEN CONNECTOR ASSY (HW2) | |
| 1013 | 1-910-037-69 | SHLDP CONNECTOR ASSY 20P | |
| 1014 | 1-910-036-82 | XA CONNECTORASSY (DF1) 9P | |
| 1015 | 1-910-042-55 | VH CONNECTOR ASSY (SP) 4P | |
| 1016 | 1-910-037-63 | CONNECTOR ASSY (USB) | |

## 5-4. KLV-52W380A

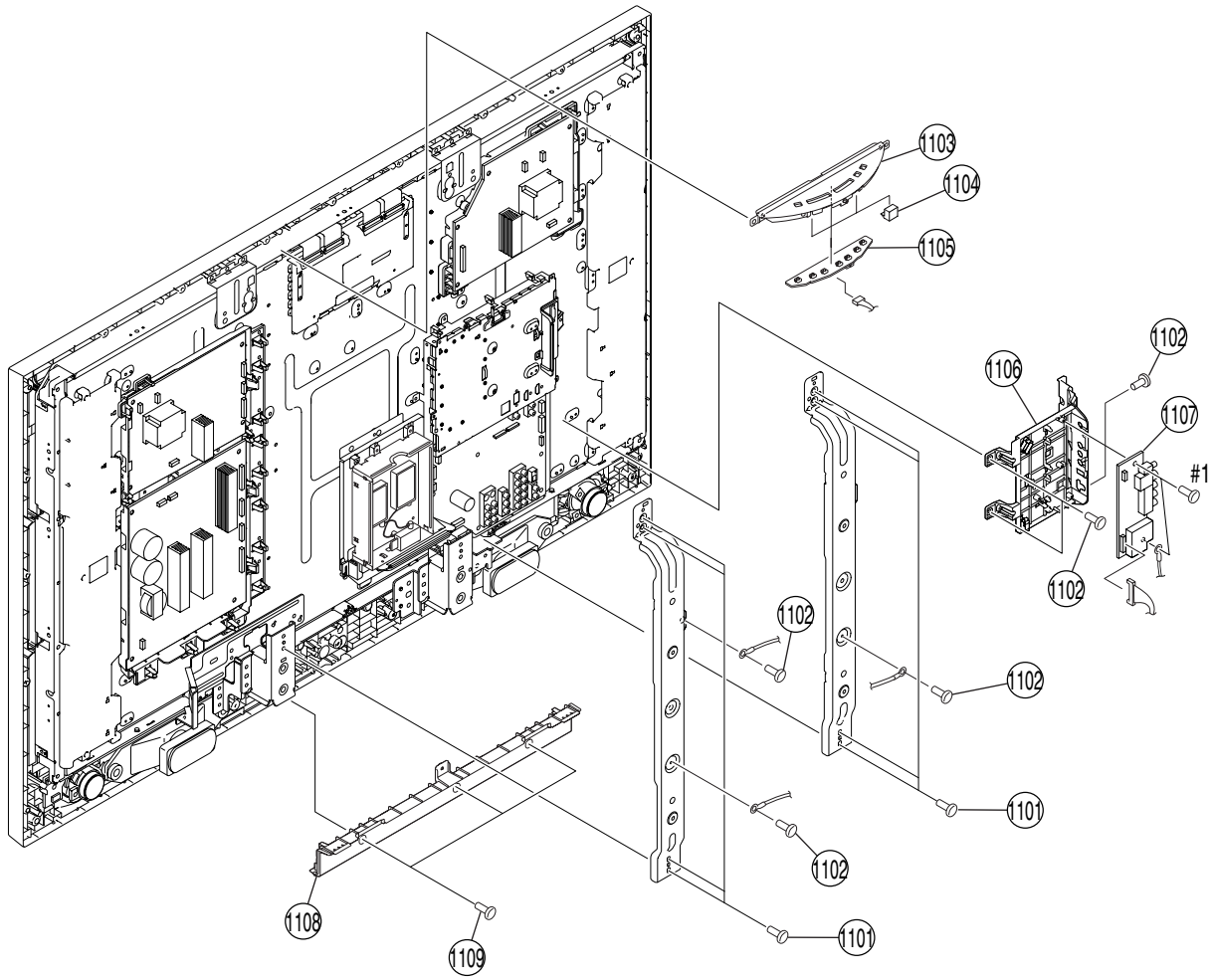
### 5-4-1. REAR COVER ASSY




| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 1051 | X-2318-303-1 | STAND BASE (L) ASSY | |
| 1052 ⚠ | X-2177-856-2 | REAR COVER ASSY (52) | |
| 1053 | 2-580-607-01 | SCREW, +PSW M5X12 | |
| 1054 | 2-595-155-02 | CLAMP | |
| 1055 | 2-580-640-01 | SCREW, +BVTP2 4X16 | |

| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 1056 | 3-274-400-01 | LABEL, HDMI | |
| 1057 | 3-106-921-41 | LABEL, REAR TERMINAL | |
| 1058 | 2-673-535-11 | SERVICE COVER | |
| 1059 | 1-754-544-21 | ANTENNA (FOR ISOLATION) | |
| 1060 | 3-279-676-01 | CONNECTOR, HOLDER (FIX2) | |
| #1 | 7-685-648-79 | SCREW +BVTP 3X12 TYPE2 IT-3 | |

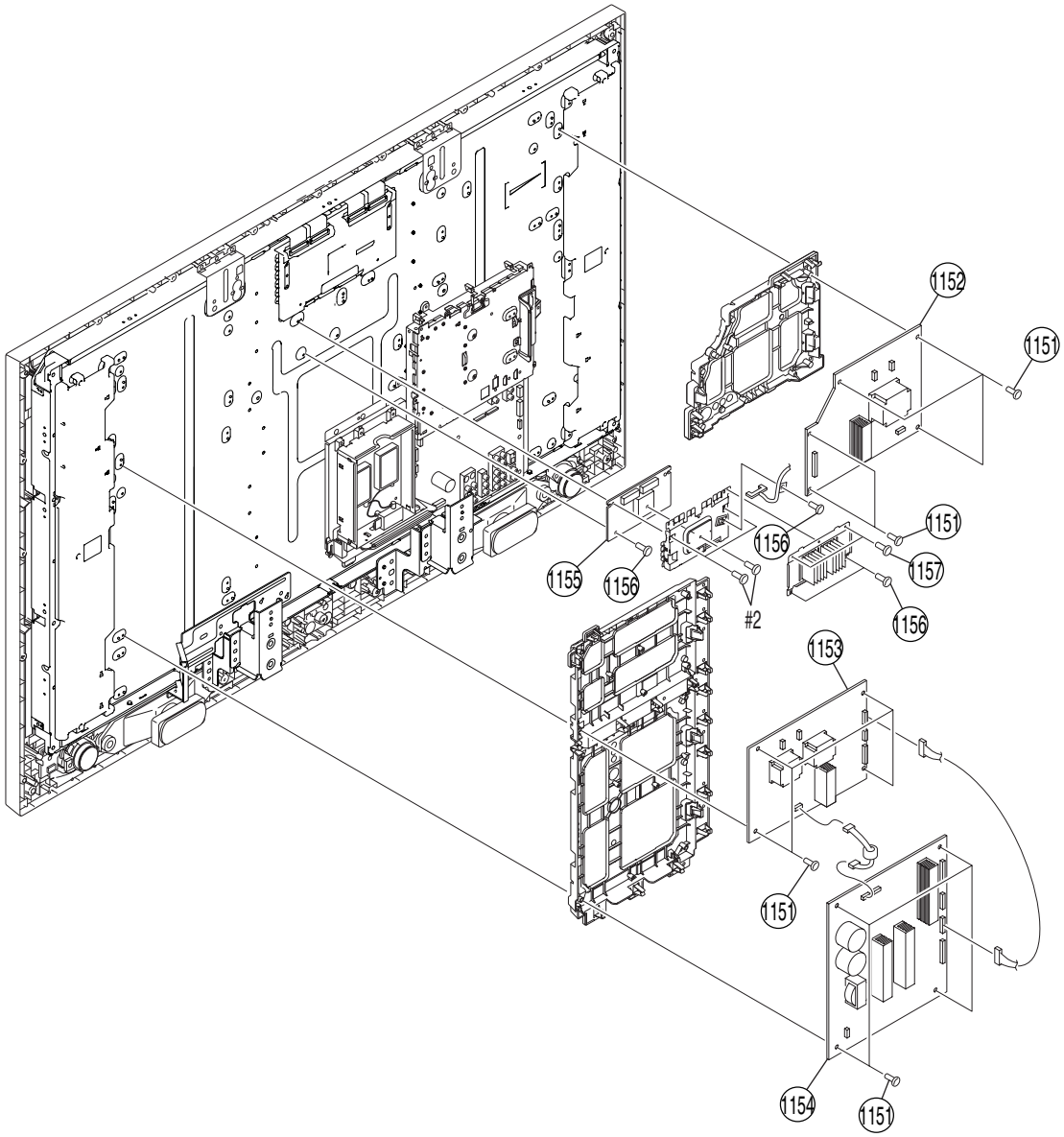
## 5-4-2. ARM ASSY AND STAND ASSY AND HW2 BOARD




| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 1101 | 2-580-606-01 | SCREW, +PSW M5X8 | |
| 1102 | 2-580-591-01 | SCREW, +PSW M3X5 | |
| 1103 | X-2188-043-1 | BUTTON, MULTI ASSY | |
| 1104 | 3-269-273-11 | SPACER, BUTTON | |
| 1105 | A-1314-427-B | HW1 MOUNT | |

| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 1106 | 3-294-372-11 | BRACKET, SIDE TERMINAL | |
| 1107 | A-1314-449-A | HW2 MOUNT | |
| 1108 | X-2179-578-1 | UNDER COVER (52) ASSY | |
| 1109 | 2-580-640-01 | SCREW, +BVTP2 4X16 | |
| #1 | 7-685-648-79 | SCREW +BVTP 3X12 TYPE2 IT-3 | |

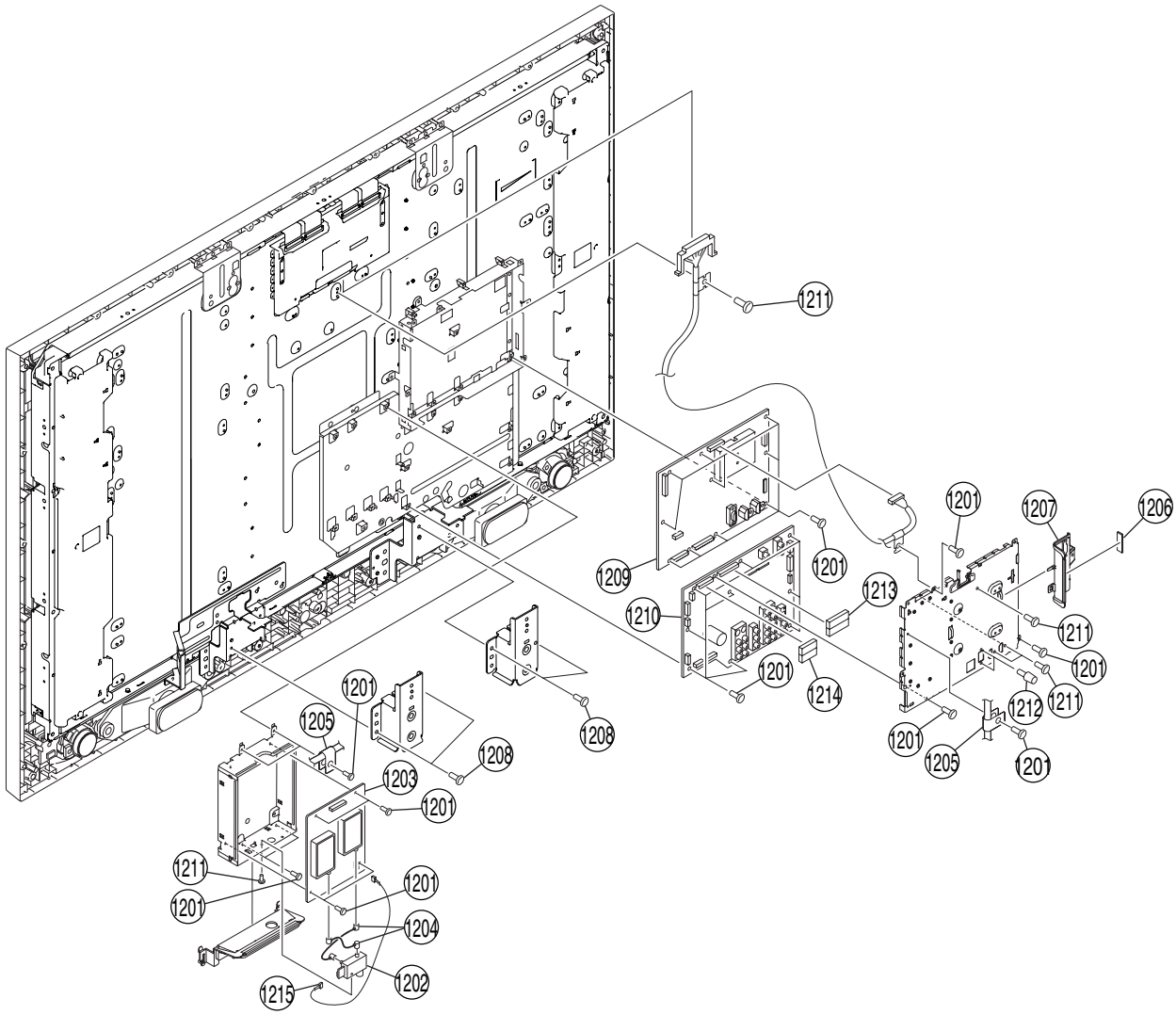
## 5-4-3. CHASSIS-1




| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 1151 | 2-674-965-51 | SCREW, +PSW 3SG | |
| 1152⚠ | A-1253-588-B | DF5 MOUNT | |
| 1153⚠ | A-1253-587-B | DF4 MOUNT | |
| 1154⚠ | A-1362-552-C | GF2 COMPL | |
| 1155 | A-1519-918-B | UB2 COMPL | |

| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 1156 | 2-580-591-01 | SCREW, +PSW M3X5 | |
| 1157 | 2-580-640-01 | SCREW, +BVTP2 4X16 | |
| #2 | 7-682-948-01 | SCREW +PSW 3X8 | |

## 5-4-4. CHASSIS-2

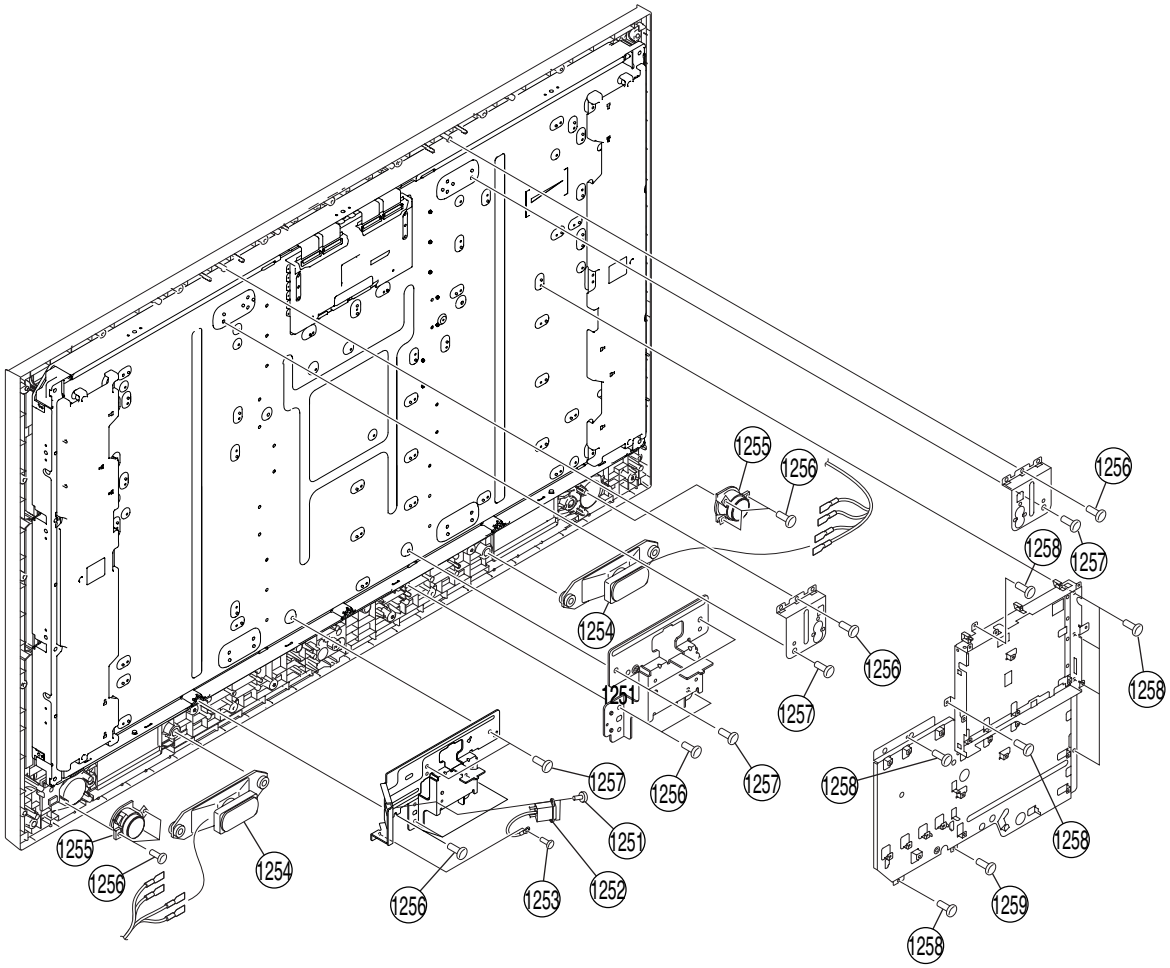



The components identified by mark 🔒 contain confidential information. Strictly follow the instructions whenever the components are repaired and/or replaced.

| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 1201 | 2-580-629-01 | SCREW, +BVST 3X8 | |
| 1202 | 1-251-658-41 | SPLITTER RF | |
| 1203 | A-1314-425-A | TUG MOUNT | |
| 1204 | 1-558-924-21 | CABLE, PIN | |
| 1205 | 4-035-862-01 | CLAMP, FG | |
| 1206 | 2-689-737-01 | COVER, MS | |
| 1207 | 3-106-942-41 | BRACKET, CARD | |
| 1208 | 2-580-630-01 | SCREW, +BVST 4X8 | |
| 1209 | A-1362-571-B | FB2 COMPL | 🔒 |
| 1210 | A-1314-443-A | AG COMPL | |

| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 1211 | 2-580-591-01 | SCREW, +PSW M3X5 | |
| 1212 | 4-635-966-01 | SCREW (HEX) | |
| 1213 | 1-821-375-11 | BOARD TO BOARD CONNECTOR 80P | |
| 1214 | 1-821-376-11 | BOARD TO BOARD CONNECTOR 50P | |
| 1215 | 1-910-029-20 | EH CONNECTOR ASSY 2P | |

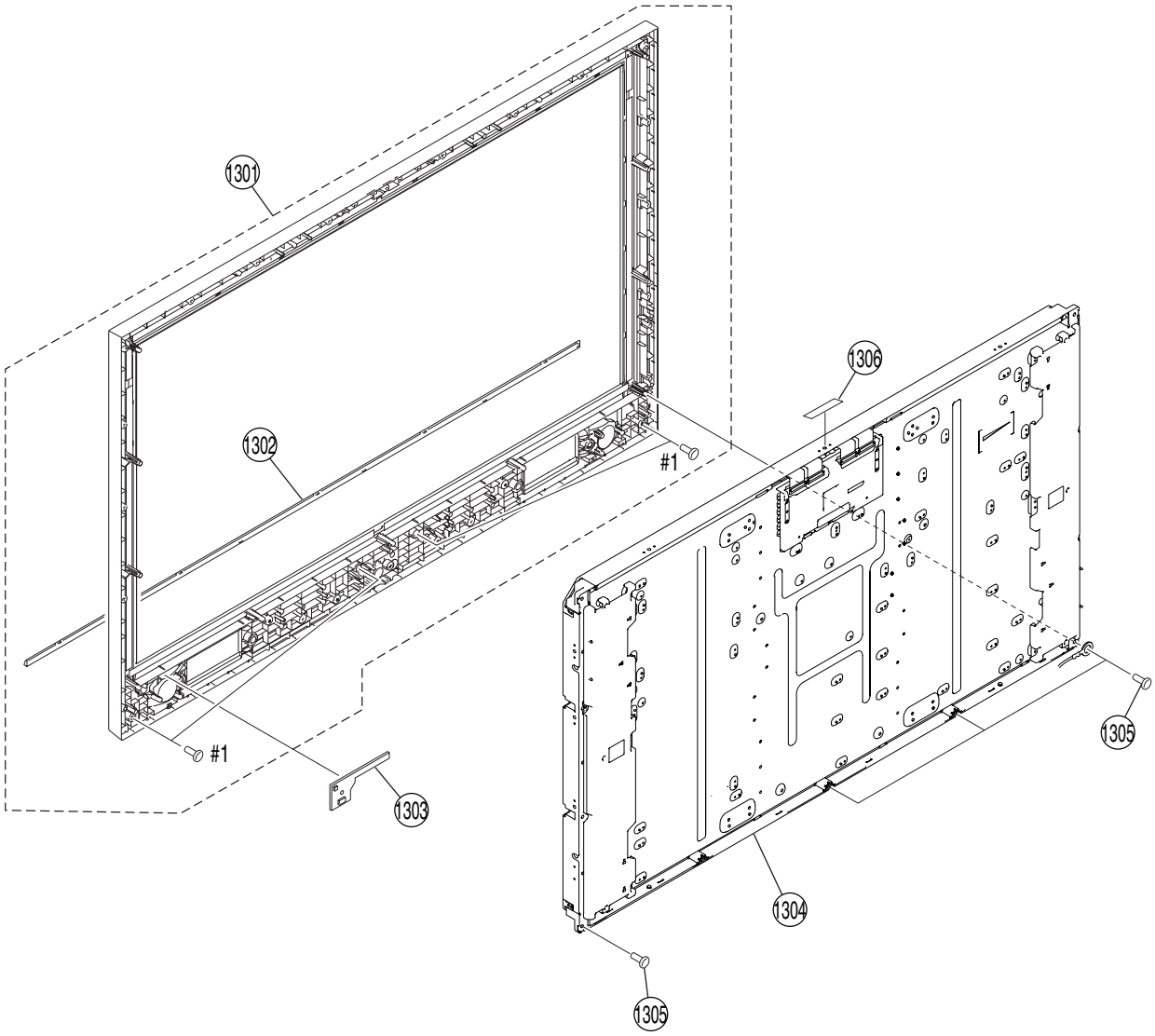
## 5-4-5. SPEAKER AND CHASSIS BRACKET




| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 1251 | 2-596-649-01 | +KTT 3X10 (S TYPE) | |
| 1252 ⚠ | 1-819-729-14 | INLET, AC (WITH NOISE FILTER) | |
| 1253 | 2-580-599-01 | SCREW, +PSW M4X6 | |
| 1254 | 1-826-697-11 | LOUDSPEAKER (13X7CM) | |
| 1255 | 1-826-695-11 | LOUDSPEAKER (40MM TWEETER) | |

| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 1256 | 2-580-640-01 | SCREW, +BVTP2 4X16 | |
| 1257 | 2-580-606-01 | SCREW, +PSW M5X8 | |
| 1258 | 2-580-591-01 | SCREW, +PSW M3X5 | |
| 1259 | 2-580-630-01 | SCREW, +BVST 4X8 | |

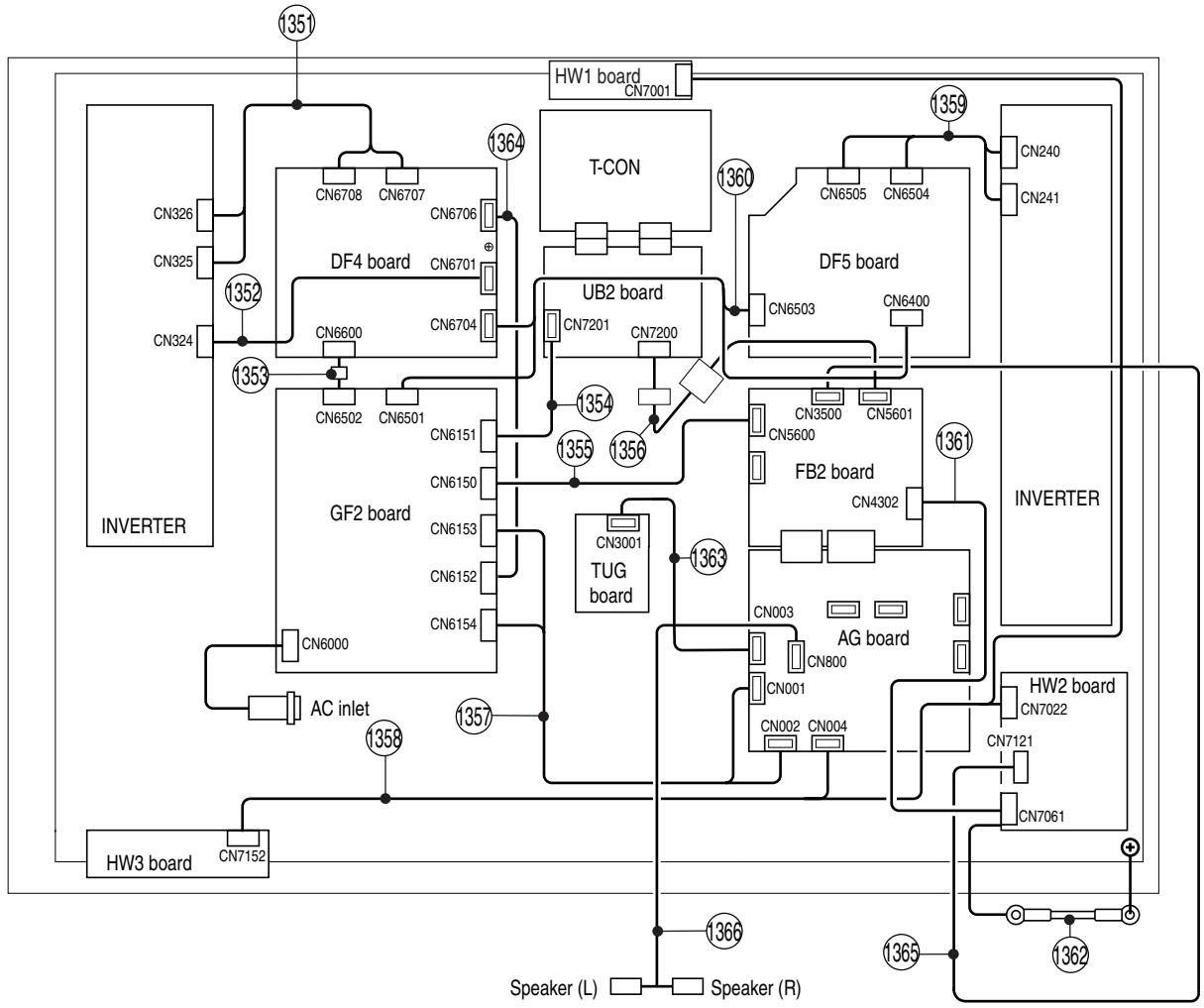
## 5-4-6. BEZEL AND LCD PANEL




| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 1301 | X-2189-791-2 | BEZEL ASSY (52) | 1302 |
| 1302 | 3-095-429-71 | ORNAMENT (52) | |
| 1303 | A-1314-430-C | HW3 MOUNT | |
| 1304⚠ | 1-802-490-33 | LCD PANEL (52 INCH FHD HFR) | |
| 1305 | 2-580-640-01 | SCREW, +BVTP2 4X16 | |

| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 1306 | 4-090-795-01 | GASKET IB | |
| #1 | 7-685-648-79 | SCREW +BVTP 3X12 TYPE2 IT-3 | |

## 5-4-7. CONNECTOR ASSY

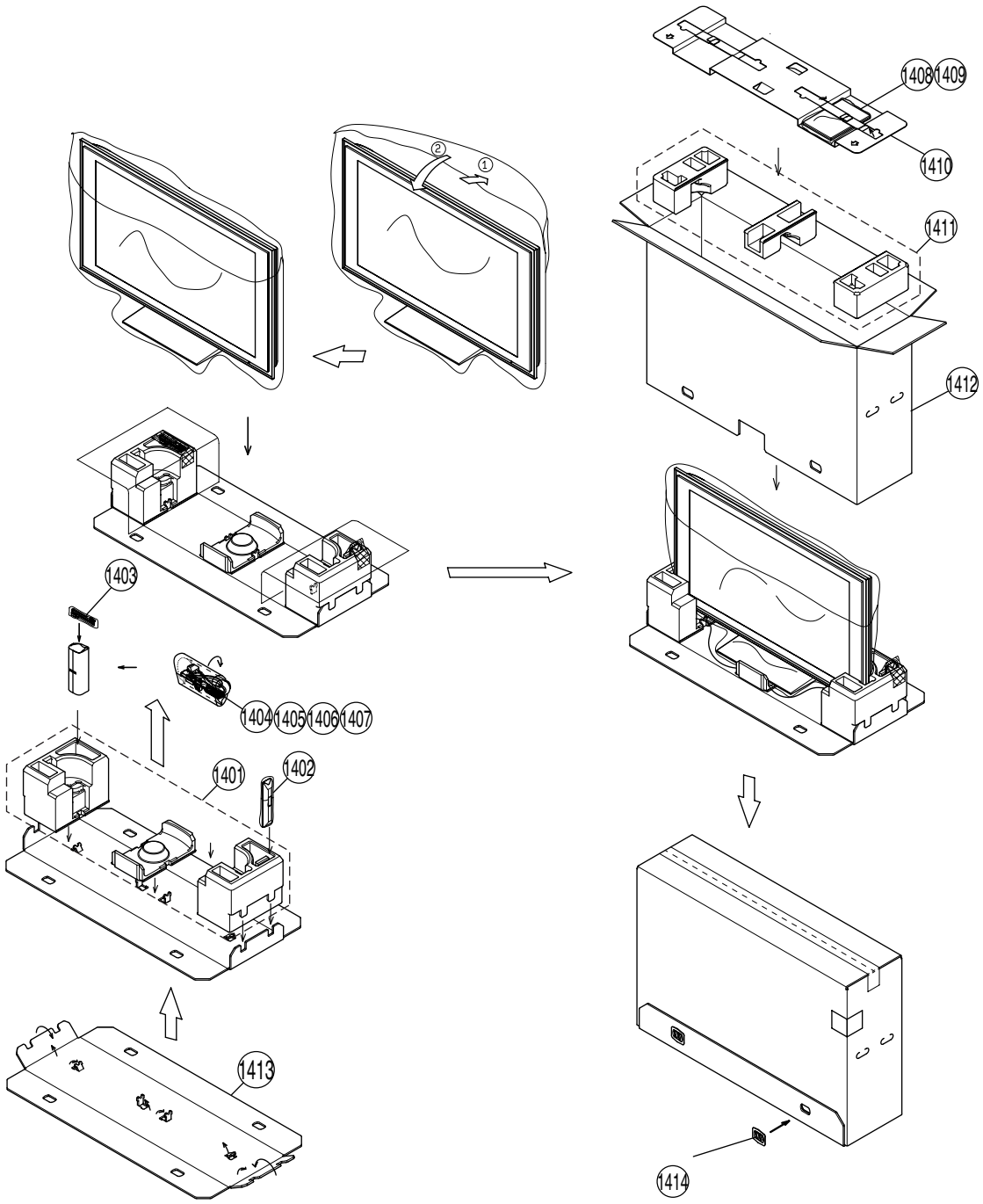



| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 1351 | 1-834-264-11 | CONNECTOR ASSY | |
| 1352 | 1-910-036-92 | XA CONNECTOR ASSY (BL) 7P | |
| 1353 | 1-910-037-32 | VH CONNECTOR ASSY (DF4) 3P | |
| 1354 | 1-910-037-04 | XA CONNECTOR ASSY (UB) 6P | |
| 1355 | 1-910-041-81 | XA CONNECTOR ASSY (FB) 13P | |
| 1356 | 1-834-620-11 | LEAD WIRE WITH CONNECTOR (LVDS) | |
| 1357 | 1-910-036-94 | XA CONNECTOR ASSY (A) | |
| 1358 | 1-910-037-77 | MO1929 CONNECTOR ASSY (H) 40P | |
| 1359 | 1-834-262-11 | CONNECTOR ASSY | |
| 1360 | 1-910-036-99 | CONNECTOR ASSY (DF5) | |

| REF. No. | PART No. | DESCRIPTION | MARK |
|---|---|---|---|
| 1361 | 1-834-140-21 | LEAD WIRE WITH CONNECTOR (LVDS) | |
| 1362 | 1-910-039-50 | FASTEN CONNECTOR ASSY (HW2) | |
| 1363 | 1-910-037-69 | SHLDP CONNECTOR ASSY 20P | |
| 1364 | 1-910-036-95 | XA CONNECTOR ASSY (DF4) 9P | |
| 1365 | 1-910-037-64 | CONNECTOR ASSY (USB) | |
| 1366 | 1-910-041-89 | VH CONNECTOR ASSY (SP) 4P | |

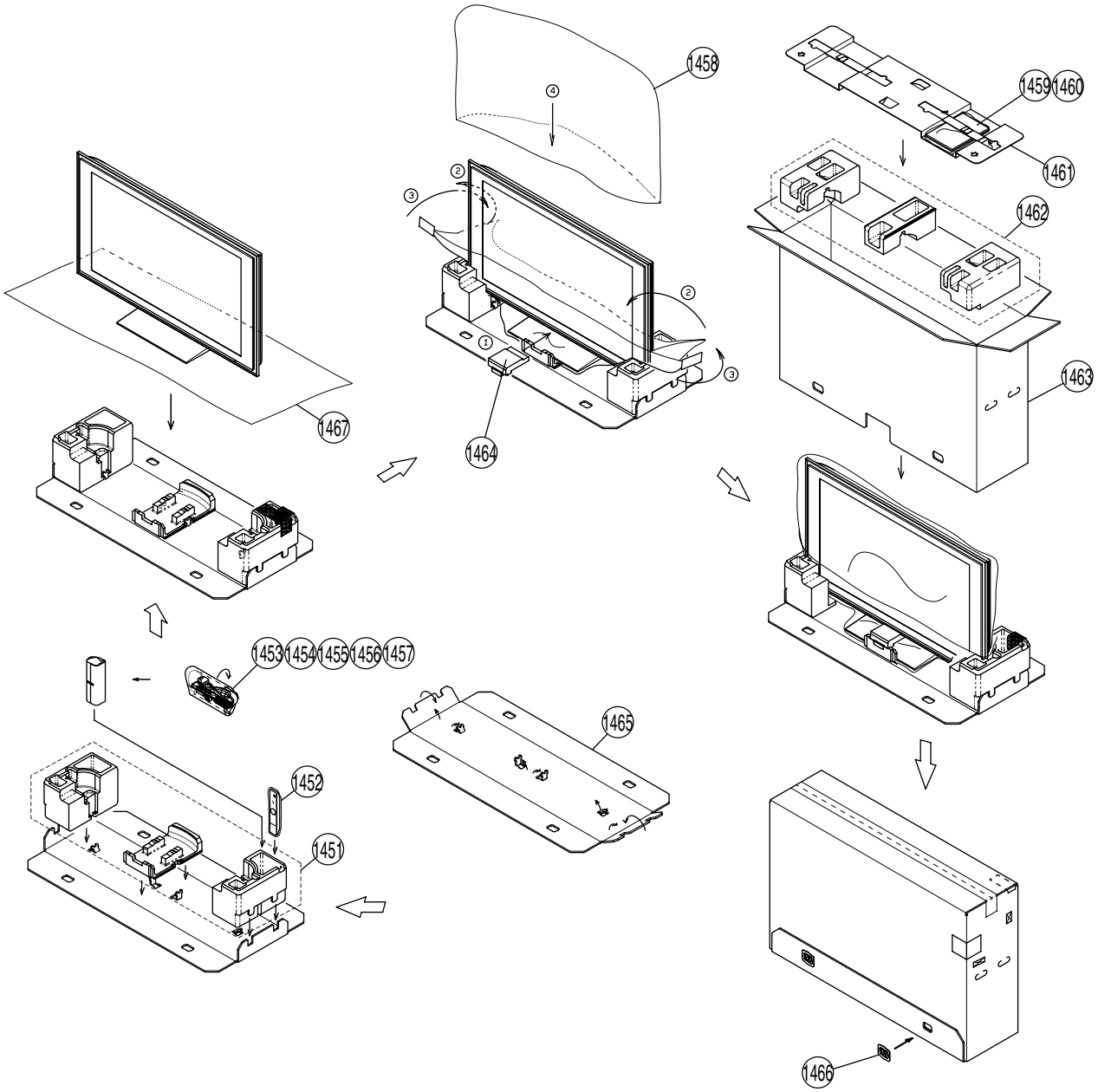
## 5-5. PACKING MATERIALS

### 5-5-1. KLV-46X300A




| REF. No. | | PART No. | DESCRIPTION | MARK |
|---|---|---|---|---|
| 1401 | * | 2-686-511-01 | CUSHION (LOWER) | |
| 1402 | | 1-480-335-11 | REMOTE COMMANDER (RM-SA013) | |
| 1403 | | 1-830-860-31 | CORD, POWER | |
| 1404 | * | X-2102-511-2 | BAG ASSY, RUDDER LOCK | |
| 1405 | | 2-580-663-01 | SCREW, WOOD 3.8X20 | |
| 1406 | | 2-593-320-02 | SCREW, CION (M6X18) | |
| 1407 | | 1-793-504-11 | CABLE ASSY (15PDSUBX2CONNECTOR) | |
| 1408 | ⚠ | 3-217-286-11 | MANUAL, INSTRUCTION | |
| 1409 | | 3-272-868-11 | MANUAL, INSTRUCTION (WALLMOUNT) | |
| 1410 | * | 2-686-509-01 | BOARD, TOP | |
| 1411 | * | 2-686-510-01 | CUSHION (UPPER) | |
| 1412 | * | 3-278-340-01 | INDIVIDUAL CARTON | |
| 1413 | * | 2-686-508-01 | TRAY | |
| 1414 | * | 4-081-035-01 | JOINT | |

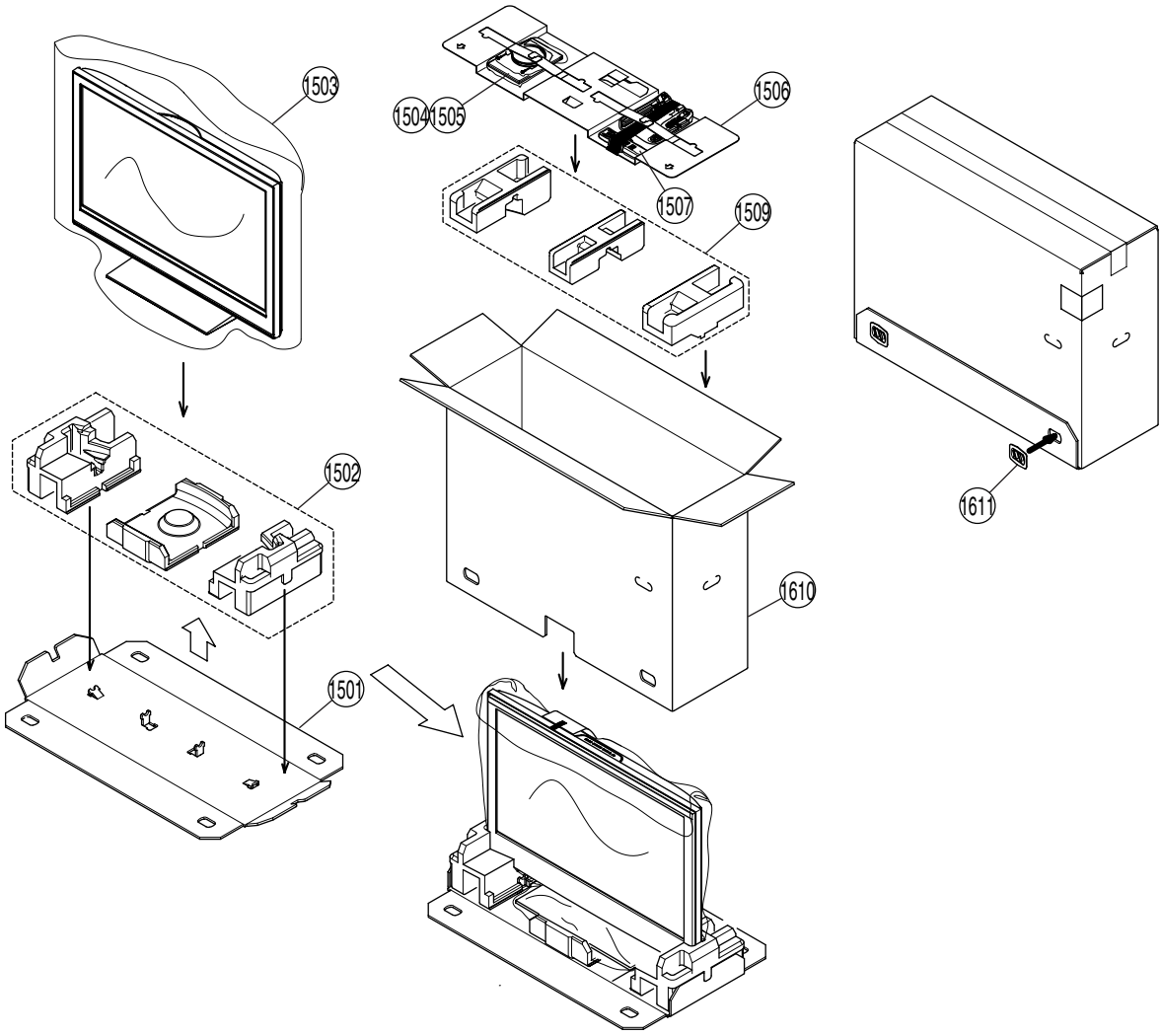
## 5-5-2. KLV-52X300A




| REF. No. | | PART No. | DESCRIPTION | MARK |
|---|---|---|---|---|
| 1451 | * | 2-891-430-01 | CUSHION (LOWER) | |
| 1452 | | 1-480-335-11 | REMOTE COMMANDER (RM-SA013) | |
| 1453 | | 2-580-663-01 | SCREW, WOOD 3.8X20 | |
| 1454 | | 2-593-320-02 | SCREW, CION (M6X18) | |
| 1455 | | 1-830-860-31 | CORD, POWER | |
| 1456 | | 1-793-504-11 | CABLE ASSY (15PDSUBX2CONNECTOR) | |
| 1457 | * | X-2149-990-1 | BAG ASSY, RUDDER LOCK (L) | |
| 1458 | * | 2-888-349-01 | BAG, PROTECTION | |
| 1459 | ⚠ | 3-217-286-11 | MANUAL, INSTRUCTION | |
| 1460 | | 3-272-868-11 | MANUAL, INSTRUCTION (WALLMOUNT) | |

| REF. No. | | PART No. | DESCRIPTION | MARK |
|---|---|---|---|---|
| 1461 | * | 2-891-428-01 | BOARD, TOP | |
| 1462 | * | 3-279-264-01 | CUSHION (UPPER) | |
| 1463 | * | 3-268-006-01 | INDIVIDUAL CARTON | |
| 1464 | * | 2-891-431-01 | CUSHION (FRONT LOWER) | |
| 1465 | * | 2-891-427-01 | TRAY | |
| 1466 | * | 4-081-035-01 | JOINT | |
| 1467 | * | 2-897-996-01 | SHEET, PROTECTION | |

## 5-5-3. KLV-46/52W380A




| REF. No. | | PART No. | DESCRIPTION | MARK |
|---|---|---|---|---|
| 1501 | * | 3-219-350-01 | TRAY (KLV-52W380A) | |
| | * | 3-219-996-01 | TRAY (KLV-46W380A) | |
| 1502 | * | 3-219-348-01 | CUSHION LOWER (KLV-52W380A) | |
| | * | 3-219-999-01 | CUSHION LOWER (KLV-46W380A) | |
| 1503 | * | 4-041-425-11 | BAG, PROTECTION (KLV-52W380A) | |
| 1504 | ⚠ | 3-298-900-11 | MANUAL, INSTRUCTION | |
| 1505 | | 1-793-504-11 | CABLE ASSY (15PDSUBX2CONNECTOR) | |

| REF. No. | | PART No. | DESCRIPTION | MARK |
|---|---|---|---|---|
| 1506 | ⚠ | 1-830-860-31 | CORD, POWER | |
| 1507 | | 1-480-335-11 | REMOTO COMMANDER (RM-SA013) | |
| 1508 | * | 3-219-351-01 | BOARD, TOP (KLV-52W380A) | |
| | * | 3-219-997-01 | BOARD, TOP (KLV-46W380A) | |
| 1509 | * | 3-219-347-02 | CUSHION UPPER (KLV-52W380A) | |
| | * | 3-219-998-01 | CUSHION UPPER (KLV-46W380A) | |
| 1610 | * | 3-298-902-01 | INDIVIDUAL CARTON (KLV-52W380A) | |
| | * | 3-298-901-01 | INDIVIDUAL CARTON (KLV-46W380A) | |
| 1611 | * | 4-081-035-01 | JOINT | |

**9-834-177-02**

**Sony EMCS Corporation**
**Inazawa TEC**

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